

CONTROVERSIAL "KING OF THE DRAGS!" CAR CRAFT

IND

OCTOBER 1969 **25c**

"STOCK"

1/4 MIDGET ENGINE TUNING—
NATIONAL RULES/SPECIFICATIONS



FIRST RUN COPY
EASTERN STREET ROD - 1984
NOT COMPLETELY MADEREADY

RACING BLOWERS

**..Step-By-Step
Assembly and
Maintenance**

RESTYLING—
**NEW BOLT-ON
LUCAS LAMPS**

ACTION—
**GO-CART NATIONAL
COVERAGE/RESULTS**



ORDER BY MAIL



NEW ITEMS

ORDER BY MAIL

NEW LOW PRICES -- HONEST ADAPTORS

NEW LITE WEIGHT
ALUMINUM PLATE
TO ADAPT
32-48 Ford and Merc.
Transmission
49-50 Merc. Transmission
32-51 1/2 to 1 1/2 ton Ford
Truck
All Lincoln Transmissions
thru 47

— To —
49-57 Olds Engine
49-54 Cadillac Engine



Complete
with pilot
bushing
Honest
Charley
price
each

#HA121A \$16.95
You Pay Postage

55-58 OHV Chevrolet
V-8 Engine To
Early Ford Transmission



#HA127 \$29.95
You Pay Postage

54-57 OHV FORD and
Merc Engine to Early
Ford Transmissions



Complete
HA 130
\$35.95
You Pay Postage

HOT ROD STEERING
ARMS
Use Late Spindles on
Early Ford
NOW MADE FROM
STRESS PROOF STEEL
FOR ADDED SAFETY



CHROME PLATED \$7.25
Each
CADIUM PLATED \$5.25
Each
HONEST No. 63



CHROME OUTSIDE
TAILPIPES

Now in one complete
package at a reasonable
price — Kit Complete —
Nothing Else to Buy —
No welding necessary —
mount on fender with
simple tools — Stop dis-
coloration of rear bumper
and paint — must for
station wagons — Packed
in Pairs.

Complete Kit for Right
and Left Side
HONEST No. 78
\$9.95

8 - 12 VOLT
CONVERSION

Complete Kit — Eliminates
need for resistors,
Replacement of starter,
generator, instruments,
etc., engine starts on 12
volts—Accessories operate
on 6 volts.



HONEST No. 79
Each Kit Complete \$8.95
We Pay Postage

NEW ALUMINUM
Adaptor To Hook
55-59 V8 Pontiac
To Early Ford Transmis-
sion



No. HA137A HONEST PRICE
\$16.95
You Pay Postage



HONEST No. HA 102
You Pay Postage

V8 Chevy To
6 Cylinder Chevy
Transmission
Adapt any V-8 Chevy
Engine 1955-58 to any 6
Cylinder Chevy Passen-
ger Car Transmission
from 1940 to 1954



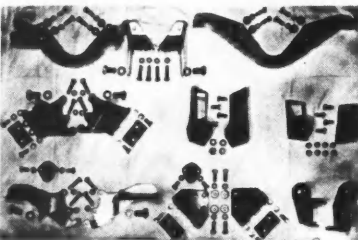
HONEST No. HA 101
EACH \$37.95

HONEST ADAPTOR
To Use
Cadillac or LaSalle
Transmission with 1955
thru 1958 V-8 Chevrolet
Engine



HONEST No. HA 103
You Pay Postage

HONEST MOTOR MOUNTS



New Improved Mounts Allow Front and Rear Adjustment To
Allow For Different Adaptor Spacing — Universal Design Lets
You Swap Cars Without Buying New Mounts. Through Bolt
Mounting Eliminates Bonded Pad Break Worries. Makes En-
gine Swap A Cinch — Installs Late Model V-8 Engines Into Ford
Merc Stude and 6 Cyl. Chevrolet Frames.

ENGINE	FRAME	PART NO	PRICE
Buick To 28-34 Ford	B202A28		16.95
Buick To 35-40 Ford & Merc	B202SP150		16.95
Buick To 41-48 Ford & Merc	B202A49		15.35
Buick To 49-53 Ford & Merc	B202A49		16.95
Cad To 28-34 Ford	CA202A28		16.95
Cad To 35-40 Ford & Merc	CA202SP150		15.35
Cad To 41-48 Ford & Merc	CA202		13.00
Cad To 49-53 Ford & Merc	CA202A49		16.95
Chry. To 28-34 Ford	CH202A28		76.95
Chry. To 35-40 Ford & Merc	CH202SP150		15.35
Chry. To 41-48 Ford & Merc	CH202		13.00
Chry. To 49-53 Ford & Merc	CH202A49		16.95
Chry. To 28-34 Ford	CH202A28		16.95
Chry. To 35-40 Ford & Merc	CV202SP150		15.35
Chry. To 41-48 Ford & Merc	CV202		13.00
Chry. To 49-53 Ford & Merc	CV202A49		16.95
OHV Ford-Merc. T-Bird Engines Except 332 & Up Listed Be- low As F.M.			
F-M To 28-34 Ford	FM202A28		16.95
F-M To 35-40 Ford & Merc	FM202SP150		15.35
F-M To 41-48 Ford & Merc	FM202		13.00
F-M To 49-53 Ford & Merc	FM202A49		16.95
Olds To 28-34 Ford	OL202A28		16.95
Olds To 35-40 Ford & Merc	OL202SP150		15.35
Olds To 41-48 Ford & Merc	OL202		13.00
Olds To 49-53 Ford & Merc	OL202A49		16.95
Pontiac To 28-34 Ford	PO202A28		16.95
Pontiac To 35-40 Ford & Merc	PO202SP150		15.35
Pontiac To 41-48 Ford & Merc	PO202		13.00
Pontiac To 49-53 Ford & Merc	PO202A49		16.95
Chev To 53-57 Studebaker	CVS3537		13.00
Chev To 49-54 Chev Six	CVC4954		13.00

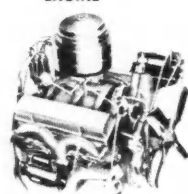
IMPORTANT! If Closed Drive Shaft Is Retained In 1928 To
1948 Ford Chassis — No. AD-75 Anti-Chatter Pre-Load Adjust-
ers Are Available To Eliminate Engine Chatter.

No. AD-75 Pre-Load Adjusters — Set . . . \$4
Dropped Drag Link, Designed To Clear Pan and Starter On All
OHV V-8 Engines

DLF49 — 49-51 Ford Drag Link EACH — 22.50
DLF52 — 52-53 Ford Drag Link EACH — 24.50

STUDEBAKER
AND
LARK OWNERS

HONEST ADAPTOR
TO PUT
1955-1958
V-8 CHEVROLET
ENGINE



HONEST NO. HA111

You Pay Postage

EACH 24.95

CROSS CHECKED FLAG
4-BAR SPINNER WHEEL
COVERS WITH CHECKED
BACKGROUND
14" - 15" - 16"



HEAVY CONSTRUCTION
SPACE FOR WEIGHTS
HONEST No. 82
Set of Four . . . \$29.95
Set of Two . . . 15.00
State Size of Wheels

STAR FIRE SPINNER



For All Hub Caps—easily
attached with screws
HONEST No. 77
Each \$1.95
You Pay Postage

SPECIAL HONEST
INTRODUCTORY OFFER
Limited Time Only
1938-1953 6 cyl. Chev.
Combination Road and
Drag Cam
216, and 235
Powerglide
No other special parts
needed



HONEST No. HCP-3
Each \$14.95
1935-1959 6 Cyl. Ply. &
Dodge Combination Road
and Drag Cam

HONEST No. HDP-4
Each \$14.95
We Pay Postage

SELECT-O-DRIVE
Combination Overdrive
Selector and Hill Holder
— Easy to Install — Makes
6 Forward Speeds out of
Your Overdrive — Allows
Clutchless Shifting, Auto-
matic Hill Holder.



A MUST FOR ALL
CARS WITH OVER-
DRIVE
HONEST No. 85
Complete Kit Ea. 4.95

NEW POWER
FOR THE
STUDE

1951-1958
6 Cyl. and 8 Cyl.
STUDEBAKER
TRANSMISSION
Except 1956 Golden
Hawk



— TO —



NEW FLOOR SHIFT CONVERSION KITS
TO FIT 40-48 FORD & MERCURY — ALSO
NEW APPLICATIONS FOR LATE MODEL
FORD & MERCS



Complete Conversion Kit To Convert Column Shift
On Cars listed Below to Floor Shift Operation.

HCH-2 1940-58 CHEVY HFO-0 1940-48 FORD	MERC	HME-3 54-up MERC Std & OD with side plates HME-4 57-up MERC Std & OD with top plates HPO-1 58-59 PONT Ex- cept Interceptor Engine ALL ABOVE	Each 24.95
HFO-1 1949-54 FORD Std & OD HFO-2 1955-up FORD Std & OD with side plates HFO-3 1957-up FORD Std & OD with top plates HME-1 49 Early 51 MERC Std & OD HME-2 51-54 MERC Std & OD			Each 26.95 Each 26.95 Each 26.95

We Pay Postage

CHROME SHIFTING STICK AND BALL
22 inch Gear Shift Extension for above floor shift
kits, May be cut off if too long.

Chrome Each 3.95
Chrome Ball for
Shifting Stick Ea. 2.25

HONEST SPECIAL OF THE YEAR
ONLY 500 TO SELL



NEW — PERFECT — 3 INCH
Air Force Quick Release Safety Belts
In Original Boxes

Use In Any Race Car — Dragster — Go Cart — Car
Tractor Truck or What Have You.

HONEST No. H-1 We Pay Postage 2.95 EACH

HONEST LAKE PLUGS FOR ALL CARS
AT A THINKING MAN'S PRICE



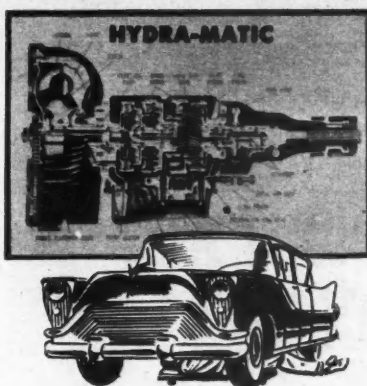
Triple Chrome Plated 18 Gauge Steel Tubing
Direct Exhaust Escape with plates removed boosts
power for competition running.

Packed in pairs, kits are complete with blocking
plates, gaskets, chrome hangers, and all fasteners.

HONEST Nos.
HP28 Complete 28" Kit for both sides . . . \$ 9.95
HP56 Complete 56" Kit for both sides . . . \$21.95

HONEST CHARLEY SPEED SHOP INC.

USE ORDER
BLANK ON INSIDE
BACK COVER



Thousands now find it a cinch to FIX ANY PART OF ANY CAR

THREE MILLION
COPIES SOLD!
USED BY U.S.
ARMED FORCES

**MOTOR'S
AUTO
REPAIR
MANUAL**

**MOTOR'S
AUTO REPAIR
MANUAL**

New — Whether You're a Beginner or Expert Mechanic
You, too, Can "Lick" ANY Auto Repair Job —
With 2,850 "This-Is-How" Pictures, 225,000 Service and
Repair FACTS, ABC Factory-Expert Methods

YES, this famous "Auto Repair Man's Bible" has turned thousands of beginner mechanics into experts. Helped thousands of experts save time, trouble and money "breasing thru" the toughest jobs. Now, the new edition can put YOU right on "top" of practically ANY job on ANY car listed — 1952 thru 1959!

No guess work! No false starts! This giant illustrated guide tells you, then shows you, with crystal-clear pictures and step-by-step directions — how to find the trouble fast — where to start... what tools to use... how to "wrap up" the job "in double-quick time!"

"Never know anything about repairing cars until I got this book. Has paid for itself time and time again."



—P. Pomper, Wis.

So Simple You CAN'T Go Wrong!

Here's everything you need to know to repair over 1967 car models. Over 1,100 giant pages, 2,850 "this-is-how" pictures, 291 "Quick-Check" charts, 30,000 essential repair specifications, 225,000 service and repair facts.

All the instructions and pictures are so complete, so clear that you can't go wrong. That's because

your hands are guided by the men who actually build the cars. For this book brings you the time and work-saving methods from 176 Official Shop Manuals!

Everything You Need to Know

Here's complete ILLUSTRATED guidance on Automatic Transmissions, Air Suspensions, Ignition, Carburetors, Fuel Pumps, Steering Gears, Brakes, Generators, Distributors, Power Brakes, Power Steering, Dash Gauges, Voltage Regulators, Starter Switches, etc., etc. Plus a big Trouble-Shooting Section that shows how to spot any one of 2300 car troubles.

No wonder this guide is used by the U.S. Armed Forces and hundreds of thousands of repair men. It's guaranteed to help even a beginner mechanic do a good job. And top-notch mechanics are amazed by the time-saving methods it brings them.

"Have been a mechanic 25 yrs. Manual still takes me out of tight spots. It's a little enough to be understood by average person."



—V. Lewis, Nev.

Try It FREE 7 Days

SEND NO MONEY! Just mail coupon. (Paste it to a postcard for fast action.) Use Manual for a whole week, free. If you don't agree it's the greatest time and work-saver you've ever seen — return book in 7 days and pay nothing. Mail coupon today! **MOTOR BOOK DEPT., Desk 8800, 250 West 55th St., New York 19, N. Y.** (Schools, Bookstores: Write for discounts.)

COVERS ALL THESE MAKES 1952 Thru 1959

Buick	Edsel	Oldsmobile
Cadillac	Ford	Packard
Chevrolet	Hudson	Plymouth
Clipper	Imperial	Pontiac
Continental	Jeep	Rambler
De Soto	Lincoln	Studebaker
Dodge	Mercury	Thunderbird
	Nash	Willis

TRY BOOK
FREE
FOR A WHOLE WEEK

Same FREE 7-Day Trial on TRUCK REPAIR MANUAL

Covers every job on every popular make truck made since 1952, including GM, Mack and Cummins Diesels. Engines, fuel systems, ignition systems, starters, generators, transmissions, axles, brakes, steering, etc., etc. For **FREE TRIAL**, check box in coupon.



MAIL COUPON NOW FOR 7-DAY FREE TRIAL (Attach to postcard if more convenient)

MOTOR BOOK DEPT., Desk 9800, 250 W. 55th St., New York 19, N. Y.

Rush to me at once (check box opposite book you want):

☐ **MOTOR'S New Auto REPAIR MANUAL.** If O.K., I will remit \$2 in 7 days, \$2 monthly for 2 months and a final payment of \$1.95 (plus 45¢ delivery charges) one month after that. Otherwise I will return the book postpaid in 7 days. (Foreign price, remit \$10 cash with order.)

☐ **MOTOR'S New TRUCK REPAIR MANUAL.** If O.K., I will remit \$3 in 7 days and \$2 monthly for 3 months, plus 45¢ delivery charges with final payment. Otherwise I will return book postpaid in 7 days. (Foreign price, remit \$11 cash with order.)

Print Name..... Age.....

Address.....

City..... Zone..... State.....

☐ Check box and save 45¢ shipping charge by enclosing WITH coupon in envelope entire payment of \$7.95 for Auto Repair Manual (or \$9 for Truck Repair Manual.) Same 7-day return refund privilege applies.



A KING WITHOUT A CROWN?

DON GARLITS raises his hand in readiness for another crack at victory. One of drag racing's most controversial figures, speed merchant Garlits is spotlighted in **CAR CRAFT**'S revealing personality profile (see P. 14). For all the facts on names in the news, be sure to get every issue of bigger-than-ever **CAR CRAFT**!

S U B S C R I B E T O D A Y !

CAR CRAFT

5959 HOLLYWOOD BLVD., LOS ANGELES 28, CALIF.

Please enter my name as a
CAR CRAFT subscriber for:

☐ 1 yr. \$3.00 ☐ 2 yrs. \$5.00

NAME (please print) _____

ADDRESS _____

CITY _____

ZONE _____ STATE _____

CAR

Robert E. Petersen—Publisher

Lee O. Ryan—General Manager

Ted A. Johnson—Business Manager

EDITOR

Dick Day

MANAGING EDITOR

Don Evans

ASSOCIATE EDITOR

Jim Glibert

EDITORIAL DESIGN

Art Smith

EDITORIAL PRODUCTION

Yvonne Hull

Marie Donnell

ADVERTISING MANAGER

Pete Hallock

ADVERTISING PRODUCTION

Bill Lew

PHOTOGRAPHERS

Bob D'Olive

Al Palocz

Colin Creitz

Pat Brallier

TECHNICAL EDITORS

Don Francisco

John Geraghty

CONTRIBUTING EDITORS

Bob Hardee

Frank Farnone

George Barris

Bud Lang

Woody Higgins

John Eddy

Bob Hegge

Pete Sukolac

PETERSEN PUBLISHING COMPANY ADVERTISING OFFICES

California

5959 Hollywood Blvd., Los Angeles 28

155 Montgomery St., Room 210, San Francisco 4

Michigan

524 Book Bldg., Detroit 21

Illinois

360 N. Michigan Ave., Chicago 1

Ohio

834 Schofield Bldg., Cleveland 15

New York

17 E. 48th St., New York 17

Car Craft, U. S. Copyright 1958 by Petersen Publishing Company, 5959 Hollywood Boulevard, Los Angeles 28, California. Second class postage paid at Los Angeles, California. Subscription rates: U. S. Possessions, Canada—1 year \$3.00, 2 years \$5.00, 25¢ per copy. Overseas—1 year \$4.00, 2 years \$7.00. Give three weeks' notice for change of address. Contributing material should be mailed to 5959 Hollywood Boulevard, Los Angeles 28, California. All contributions must be accompanied by return postage. Petersen Publishing assumes no responsibility for loss or damage thereto.

CAR CRAFT

CRAFT

Wally Parks—Editorial Director
Al Isaacs—Art Director
Al Benedict—Advertising Director

Gordon Behn—Circulation Director
Jack Preston—Production Director
Bob Nylund—Credit Manager

features

- 14 **CONTROVERSIAL "KING OF THE DRAGS"**
Don Garlits, the most controversial figure in drag racing
- 18 **FLEETLINE IN DISGUISE**
It takes a second look to determine the make of this custom
- 20 **RACING BLOWERS — Part I**
Competition assembly and maintenance for GMC superchargers
- 26 **DOUBLE DUTY DEUCE**
Jim McGowan utilizes his '32 roadster for work and play
- 28 **STYLED FOR A YOUNG MAN'S FANCY**
Burt Hamrol's radical '50 Ford — designed just for him
- 30 **MACADAM MANIA**
Karting's 1st Annual National Championship road race
- 34 **3 WINDOW FAVORITE**
George Smaldone's sharp '33 Ford street coupe
- 36 **RESTYLING THE '58 CHEVROLET**
Barris Kustom adds new ideas to a repeat performer
- 40 **CHAMP OF THE "SPORTSMEN"**
Track rod features a 300 HP Buick in a modified Willys
- 44 **HERE'S HOW:**
English Lucas headlights are the latest styling trend
- 46 **DRAGSTER X**
Experimental lightweight turns 90 MPH at the drags
- 48 **QUARTER MIDGET ENGINES — Part I**
National rules and regulations — setting up "Basic" engine

departments

- | | |
|-------------------|------------------------------------|
| 8 CC SHOPS | 58 WHAT'S YOUR PROBLEM? |
| 12 LETTERS | 60 1/4 - 1/2 MIDGET BULLETIN BOARD |
| 64 CUSTOM QUERIES | |

COVER

George Smaldone's beautiful '33 Ford Coupe has the main spot on this month's cover. Also seen is John Geraghty putting the finishing touches on a blower installation. On the right are the new Lucas lamps. — Anscochromes by Eddy, D'Olive, Creits

Join
the
**WAHLBORG
WINNERS**



In the country's fastest growing automotive sport—1/4 and 1/2 midget competition—one name stands out from the rest—Wahlborg! Wahlborg is the holder of more track records than any other make in America. These small cars are famous for their safety, performance, durability and clean-lined beauty. And they wear the Champion Label, because of their winning habits. Wahlborg models are designed and built to WIN!

WAHLBORG 1/4 MIDGETS
\$450 - \$550

Write for our
new brochure.

WAHLBORG 1/2 MIDGETS
\$550 up



Meet the WAHLBORG SCRAM-BUGGY

most durable car of its type—with the heavy duty frame that takes knocks without giving an inch! Just won't Tip . . . trouble-free . . . precision built with arc-welded strength! Available with 2 or 4-cycle engine—with or without clutch.

MODELS FROM \$137.50



WAHLBORG ENGINEERING CO.

3100 Pacific Coast Hwy. CO-10
Torrance, Calif. Box 1277

LEAD
THE FIELD
COMING & GOING
with a
Carry-All

*Pat. Pend.
Trade Mark



List Price \$146.50
FOB Factory

THE SMALL CAR TRAILER THAT'S
ENGINEERED FOR YOUR CART, ¼
OR ½ MIDGET . . .

- Trails at any speed
- Meets all legal requirements in 50 states
- All standard equipment, (no extras to buy)
- Built-in stop, tail and directional lights
- European-type square tubular frame
- Hi-speed, 4 ply air-craft quality tires
- Timken tapered bearings in both wheels
- Double safety chains
- 4-coat enamel finish
- Frame hitches for all domestic and foreign cars

DEALER INQUIRIES INVITED



NEW LIGHTWEIGHT ROD

4140 FORGED STEEL
HEAT TREATED
COMPLETE WITH INSERT

\$39.50

WESTERN HEADQUARTERS
FOR ALL ¼ & ½ MIDGETS
parts and accessories.
Write today for free cata-
log. Dealers Inquiries
Invited.



DISTRIBUTOR
OF

BRUCE SLICKS

Quarter Midget
Champion, John
Kuramoto, 1958
Phoenix "AA" Win-
ner, says "Never got
such a bite from any
other tire."



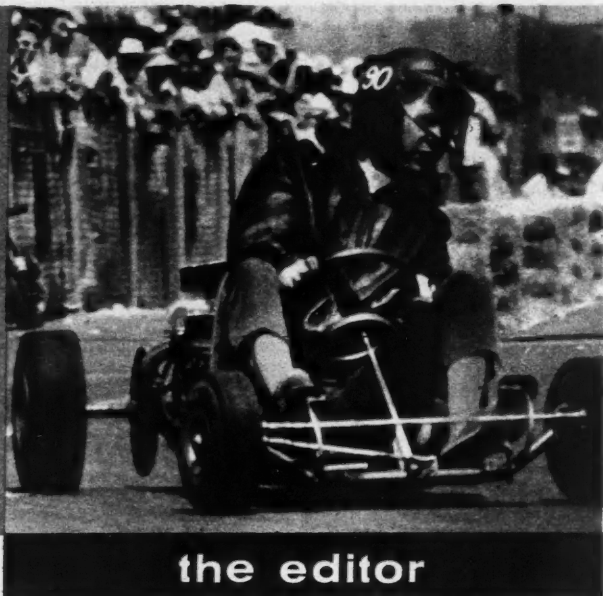
VERN Gardner
SPEED PARTS

4418 E. 14TH STREET, CC-10
OAKLAND 1, CALIFORNIA

SPEAKING

of

the editor



ALTHOUGH THIS MONTHLY column is entitled *Speaking Of The Editor*, I would like to transpose it this month to read "Speaking Of Faye Pierson." On page 30 you will find a comprehensive report of the National Go Kart Championship races recently staged by the Go Kart Club of America. You will even find the name and photograph of Faye Pierson concerning her official achievement for the huge three day title meet. She officially placed second in the small A-class racing division—but *unofficially, she stole the meet!* No one paid much attention to her presence in the pits during early morning qualifying. It was obvious that she was a participant, but a slight build of a girl, one of two female entries out of over one hundred competitors . . . and, so what? That's about the way things went 'til her husband, Tom Pierson, proprietor of Bug Engineering, shoved her to a start for a crack at qualifying. Up 'til this time, Jim Yamane, local carting ace and holder of the track record of the A-class division on the popular Go-Kart Manufacturing's asphalt road race course, had been dicing around the track as if on a wire nipping tenths of seconds from his previous one lap record. That was until the lissome Faye Pierson flashed by the electric timing clocks for her one lap tour of 42.2—a full second faster than any previous A-class mark. At the end of the day Faye had not only established a new record, and undoubtedly a long standing one for her division, but had also qualified her car faster than many of the more powerful, B-class racers. Mrs. Pierson was no longer just an entry—she was a threat!

Early next morning Faye was on the pole ready for her first heat race, one of three under the International Moto Cross racing and scoring system that was employed by the GKCA for this year's first championship event. Ace handler, Jim Yamane, was directly across from her in the outside row. As the cars assembled for their running start, spectators, officials and press alike were fevered to a high pitch to see the outcome of this boy-meets-girl contest. With a signal of the starter's flag, Faye jumped into the lead with Yamane pulling into the

bidding second slot. For the next fifteen laps Faye Pierson threw her small car into corners at full throttle speeds, darting down straightaways ahead of the twenty-car field like a veteran. Yamane made his bid on the sixteenth lap just edging out Faye before a tight corner. The remaining four laps saw driving skill like that never before displayed. The two drivers toured the 4/10ths of a mile course like they were upon a tandem cart. Faye never once allowed Yamane to get more than two feet out of her sights. As the two cart pilots dove into the last corner and came out charging for the finish line—Faye pulled along side of Yamane for a last burst of speed. It proved too much pressure for Yamane's potent McCulloch engine for at this moment the crankshaft broke and Faye swept beneath the checkered flag—first!

For their second meeting of the day's three races, Yamane had made a quick engine swap and was again ready to do battle. This second twenty lapper paid off in misfortune for Faye. After leading the field several laps, her car threw a drive chain which eliminated her chances of a first score. Yamane went on to win in fine style.

The third and last race witnessed Faye's most determined bid for a national title. After starting dead last, she moved thru some seventeen cars to take up third position within a few short laps. While setting up and attempting to overtake the second place man misfortune again dealt a disastrous blow. The cars crashed, wheels locked, and both cars came to a dead engine halt. Several positions were lost while the cars were being untangled. Once back in the race it was the old story of not enough time. Faye was able to gain her third place position back before the checkered flag fell—but it wasn't good enough.

There will be many bench racing sessions concerning this first national carting event—the winners—the champions. But the biggest conversation piece will concern a girl who put on such an uncanny display of driving that she won the hearts of spectators and fellow contestants alike in a truly championship style.

— Dick Day
CAR CRAFT

JC WHITNEY & CO FIRST WITH THE LATEST IN AUTO PARTS AND ACCESSORIES

STAINLESS STEEL Fender Well

FOR POPULAR CARS

- Flared Bottom
- Custom Tailored

They last! With finished steel, stainless steel, chrome, or nickel-plated. Stainless steel is the most popular. Nickel-plated is the most durable. Chrome is the most attractive. Custom tailored to fit your car. Easy to install.

1958 Buick \$21.95
1958 Chevrolet \$21.95
1958 Ford \$21.95
1958 Mercury \$21.95
1958 Oldsmobile \$21.95
1958 Pontiac \$21.95
1958 Rambler \$21.95
1958 Studebaker \$21.95
1958 Volkswagen \$21.95
1958 Buick \$21.95
1958 Chevrolet \$21.95
1958 Ford \$21.95
1958 Mercury \$21.95
1958 Oldsmobile \$21.95
1958 Pontiac \$21.95
1958 Rambler \$21.95
1958 Studebaker \$21.95
1958 Volkswagen \$21.95

ADJUSTABLE LOWERING KITS for 58-59 BUICK, CHEV., CADILLAC, PONTIAC

Adjustable 1/2" to 4" drop. When you use our adjustable spring hangers, you can lower your car 1/2" to 4" drop. This gives you a better ride, and it's easy to install. The hangers are made of heavy-duty steel, and they're custom tailored to fit your car. They're easy to install, and they'll last for years.

1958 Buick \$12.95
1958 Chevrolet \$12.95
1958 Cadillac \$12.95
1958 Pontiac \$12.95

"WIND-UP" SPORTS CAR KEY

Has a beautiful, colorful design. It's a key that you can use to start your car. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.49
1958 Chevrolet \$1.49
1958 Cadillac \$1.49
1958 Pontiac \$1.49

Self-Adhesive VOLKSWAGEN "GRILLE"

Has a beautiful, colorful design. It's a grille that you can use to decorate your car. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$12.81
1958 Chevrolet \$12.81
1958 Cadillac \$12.81
1958 Pontiac \$12.81

The Light Detroit Forgoit Gear Shift Selector LIGHT For 1959 Chevrolet

Has a beautiful, colorful design. It's a light that you can use to illuminate your gear shift. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$12.25
1958 Chevrolet \$12.25
1958 Cadillac \$12.25
1958 Pontiac \$12.25

WOODCOCK HEAD Gearshift KNOBS

Has a beautiful, colorful design. It's a knob that you can use to shift your gears. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.00
1958 Chevrolet \$2.00
1958 Cadillac \$2.00
1958 Pontiac \$2.00

MANUAL TRUNK KIT

Has a beautiful, colorful design. It's a kit that you can use to install a manual trunk. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.49
1958 Chevrolet \$1.49
1958 Cadillac \$1.49
1958 Pontiac \$1.49

WHEN YOU WANT PLINY OF NOISE—INSTALL A HOLLYWOOD NOISE MAKER MUFFLER

Has a beautiful, colorful design. It's a muffler that you can use to make your car louder. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.98
1958 Chevrolet \$2.98
1958 Cadillac \$2.98
1958 Pontiac \$2.98

PIN STRIPING

The newest and latest custom body work. It's a striping that you can use to decorate your car. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

Starter Motor Change-Over Kit for Olds V8

Has a beautiful, colorful design. It's a kit that you can use to change over your starter motor. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$25.95
1958 Chevrolet \$25.95
1958 Cadillac \$25.95
1958 Pontiac \$25.95

New Hydraulic AERO-TYPE SHOCKS To Replace Regular 1958-59 FORD and MERCURY SHOCKS

Has a beautiful, colorful design. It's a shock absorber that you can use to replace your regular shock absorber. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$12.81
1958 Chevrolet \$12.81
1958 Cadillac \$12.81
1958 Pontiac \$12.81

ELECTRIC PUSH BUTTON DOOR KIT

Has a beautiful, colorful design. It's a kit that you can use to install an electric push button door. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$12.25
1958 Chevrolet \$12.25
1958 Cadillac \$12.25
1958 Pontiac \$12.25

Color Dye for Lamp Bulbs

Has a beautiful, colorful design. It's a dye that you can use to color your lamp bulbs. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

Volkswagen CAR PLAQUE

Has a beautiful, colorful design. It's a plaque that you can use to decorate your car. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.98
1958 Chevrolet \$2.98
1958 Cadillac \$2.98
1958 Pontiac \$2.98

TRUNK TOOL HOLDER

Has a beautiful, colorful design. It's a holder that you can use to hold your tools in your trunk. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.98
1958 Chevrolet \$1.98
1958 Cadillac \$1.98
1958 Pontiac \$1.98

Chrome Bulbs Center TAILLIGHT LENS for '57 & '59 FORDS

Has a beautiful, colorful design. It's a lens that you can use to replace your center tail light lens. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

Chrome Plated Bullets

Has a beautiful, colorful design. It's a bullet that you can use to replace your chrome plated bullet. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

Spun Aluminum SNAP-ON RACING WHEEL DISCS

Has a beautiful, colorful design. It's a wheel disc that you can use to replace your spun aluminum wheel disc. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.75
1958 Chevrolet \$2.75
1958 Cadillac \$2.75
1958 Pontiac \$2.75

MELLOW TONE Fiber Glass Padded MUFFLERS

Has a beautiful, colorful design. It's a muffler that you can use to mellow your car's tone. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.75
1958 Chevrolet \$2.75
1958 Cadillac \$2.75
1958 Pontiac \$2.75

EXHAUST CUT-OUT

Has a beautiful, colorful design. It's a cut-out that you can use to cut out your exhaust. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$3.75
1958 Chevrolet \$3.75
1958 Cadillac \$3.75
1958 Pontiac \$3.75

CAP SPINNER

Has a beautiful, colorful design. It's a spinner that you can use to spin your cap. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.79
1958 Chevrolet \$1.79
1958 Cadillac \$1.79
1958 Pontiac \$1.79

"Hollywood" Wall Whistle

Has a beautiful, colorful design. It's a whistle that you can use to blow your horn. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.95
1958 Chevrolet \$2.95
1958 Cadillac \$2.95
1958 Pontiac \$2.95

ENGINE & TRANSMISSION ADAPTERS

Has a beautiful, colorful design. It's an adapter that you can use to adapt your engine and transmission. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

Adaptive Chevy V8 Engines to 39-54 Chevrolet 6 cylinder with standard transmission

Has a beautiful, colorful design. It's an engine that you can use to adapt your Chevy V8 engine to a 6 cylinder engine. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

TRANSMISSION CONVERSION KITS

Has a beautiful, colorful design. It's a kit that you can use to convert your transmission. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

Add A Booster Horn For Extra Safety BOOSTS HORN WARNING 300%

Has a beautiful, colorful design. It's a booster horn that you can use to boost your horn warning. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$5.95
1958 Chevrolet \$5.95
1958 Cadillac \$5.95
1958 Pontiac \$5.95

SOLID ROUND 1 1/2" GEAR SHIFT BALL

Has a beautiful, colorful design. It's a gear shift ball that you can use to shift your gears. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.50
1958 Chevrolet \$2.50
1958 Cadillac \$2.50
1958 Pontiac \$2.50

Chrome Door Lock Knobs

Has a beautiful, colorful design. It's a knob that you can use to lock your door. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

BURGALAR ALARM

Has a beautiful, colorful design. It's an alarm that you can use to protect your car from burglars. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.95
1958 Chevrolet \$2.95
1958 Cadillac \$2.95
1958 Pontiac \$2.95

Car Club Jackets

Has a beautiful, colorful design. It's a jacket that you can use to wear to your car club. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

CHOICE OF FIVE DESIGNS

Has a beautiful, colorful design. It's a design that you can use to choose from. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.00
1958 Chevrolet \$1.00
1958 Cadillac \$1.00
1958 Pontiac \$1.00

STYLE LEADER CONTINENTAL KITS

Has a beautiful, colorful design. It's a kit that you can use to make your car look like a style leader. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$4.95
1958 Chevrolet \$4.95
1958 Cadillac \$4.95
1958 Pontiac \$4.95

AUTO FABRIC SPRAY

Has a beautiful, colorful design. It's a spray that you can use to spray your car's fabric. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$2.95
1958 Chevrolet \$2.95
1958 Cadillac \$2.95
1958 Pontiac \$2.95

BULL NOSE ORNAMENT

Has a beautiful, colorful design. It's an ornament that you can use to decorate your car. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.95
1958 Chevrolet \$1.95
1958 Cadillac \$1.95
1958 Pontiac \$1.95

T-BIRD TYPE EMBLEM

Has a beautiful, colorful design. It's an emblem that you can use to decorate your car. It's made of heavy-duty steel, and it's custom tailored to fit your car. It's easy to install, and it'll last for years.

1958 Buick \$1.95
1958 Chevrolet \$1.95
1958 Cadillac \$1.95
1958 Pontiac \$1.95

USE THIS HANDY ORDER FORM - MAIL TODAY!

JC WHITNEY & CO
1917(C210) Archer Ave., Chicago 16, Ill.

Name _____
Address _____
City _____ State _____
Zip _____

Quantity _____ Description _____ Price _____

Subtotal _____
Tax _____
Total _____

Check or Money Order \$ _____
If you prefer to pay by check, please allow 10 days for payment.
If you prefer to pay by credit card, please allow 10 days for payment.
If you prefer to pay by cash, please allow 10 days for payment.

NOTE: Please be sure to give all information such as color, size, body style, make, year & model.

FREE!

NEW 365 PAGE CATALOG
BIGGEST IN OUR HISTORY

NEW LOW PRICES
THOUSANDS OF NEW ITEMS
1960 EDITION

Send for your free catalog today!

WELD IT YOURSELF! IN A JIFFY!

Weld, cut, braze, solder IRON, STEEL, BRONZE, BRASS, ALUMINUM & OTHER METALS . . .

Auto, truck, shop and farm equipment break-down always cause annoying and costly delays. Don't let them bother you. Get a Dynamic transformer type Arc Welder. With the Dynamic you can also make your own wrought iron, household, lawn furniture and many knick-knacks. Do expert work on your first job. Operates from any properly wired 110 volt AC line. The handiest tool in your workshop. A Dynamic Welder will save its low cost of only \$38.50 f.o.b. in both time and money. Literature on larger equipment on request.

DYNAMIC INDUSTRIAL type transformer Arc Welder 75 amp. output for industrial or Workshop use.

DYNAMIC WELDER CO.

Dept. 864-K, 1800 S. Federal Chicago 16, Ill.

\$38.50 f.o.b.
Send only \$6.00 check or M.O. Pay Postman balance plus charges. 10 day money back and 1 year guarantee.
EASY PAY PLAN Low down payment. Pay as you weld.



Free Details and "How to Weld"

Scotty's
MIDGET
ENGINE PARTS AND ACCESSORIES

Compact competition racing gear case, lightweight, sure lock allen head screws, full ball bearing with fuel resistant neoprene seals throughout.



For complete parts catalog, price list and decal send 25¢

Scotty's RACING EQUIPMENT

MAKE MORE MONEY IN

AUTO MECHANICS AND DIESEL

You are needed in auto garages, airplane factories, farm shops, experimental and government trucks are repaired and serviced. National Schools Shop Method Training prepares you at home, in spare time, for these fascinating opportunities. You get everything you need, including lessons, diagrams, manuals, consultation privileges, graduate employment service. Low tuition; pay as you learn.



YOU GET AND KEEP ALL THIS EQUIPMENT

NATIONAL
SCHOOLS

NATIONAL SCHOOLS, DEPT. 867-100
4000 S. FIGUEROA ST., LOS ANGELES 37, CALIF.

Rush free Auto Diesel "Opportunity" Book and sample lesson. No salesman will call.

NAME _____ AGE _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

☐ Check if interested ONLY in Resident Training at Los Angeles.
VETERANS: Give date of Discharge.

BOTH
FREE

CC shops

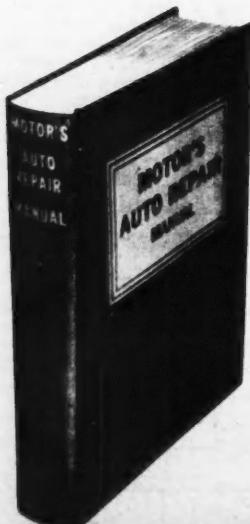
COMPETITION NUMBERS

Latest numbering system for all types of competition vehicles: 10" diameter white disc with 6" black numbers. Self-adhesive, easily removed; does not harm surface. Price: 75¢ each. Charcon, Inc., 7137-cc Laurel Canyon, N. Hollywood, Calif.



SCRAMBLER CYCLE

Just the thing for fun or stowing in the trunk on trips. West Bend 3 1/2 h.p. mill, internal expanding brake, clutch, upholstered seat are included. Price: \$149. Write: Go Kart Mfg., Dept. cc, 6300 N. Irwindale Road, Azusa, California.



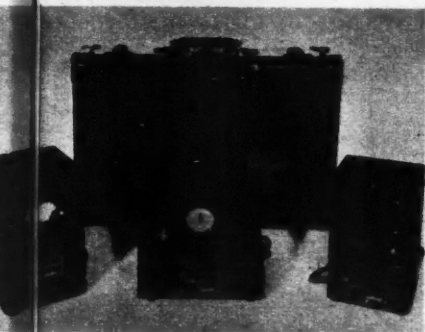
REPAIR MANUAL

Complete instructions, hundreds of pictures, diagrams, and charts show you how to repair any '52-'59 car. 7-day return guarantee. Price: \$7.95. Write: Motor Book, Dept. cc, 250 W. 55th St., New York 19, New York.

NEW SOCKET

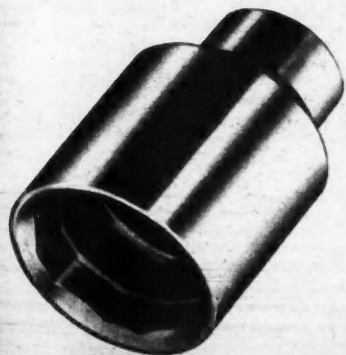
Two-in-one socket with step-down openings for 1" and 1 1/8" with special depth, shoulder width, and contour to prevent damages. Write: Herbrand Tools, The Bingham-Herbrand Corp., Dept-cc, Fremont, O.

CAR CRAFT



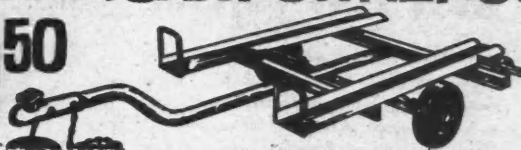
TRACK TIMERS

Small oval tracks and racing associations can use this new electronic timing system featuring mechanically activated watches. Write: Eltic, Inc., 2617-cc Ohio, Topeka, Kansas.



NEW MIDGET TRAILER FOR Q-M and CART OWNERS!

ONLY **89.50**



Here it is, fellows and dads! The newest, lightest, all-steel trailer for transporting your Q-M or Cart. Weighs less than 100 lbs! High-speed roller bearing wheels. . . . Also available for 1/2 midgets and 1/4 tandems. . . . Custom hitches too. . . . Standard, \$12.95; Chrome, \$16.95. Order now or write for information on trailers and hitches. Fully guaranteed!

WRITE TO:

**MIDGET TRAILER
SPECIALTIES CO.**
P.O. BOX 3361
SO. EL MONTE, CAL.



Consistency

— the mark of a champion. The Go Kart 400 B displays the champion's mark with its consistent quality, high record of performance in competitive events and unmatched popularity. Not content to be first in production and establishing a standard for the industry, the Go Kart line shows consistent advancement in design, styling and safety standards. At the recent championship road races held by the Independent Go Kart Club of America, 3rd, 4th and 5th spots were won in the A Class category by production Go Karts fitted with engines and tires available as optional extras on any order. These were not special or modified designs built solely for racing. We invite you to look at our product and we invite our competitors to offer equal values at an equal price. For racing or family fun, count on Go Kart's consistency. Order yours now, at your nearby dealer, or write direct, enclosing just \$35—balance C.O.D. For further information send \$5 for a four color brochure.

kit form
or completed
prices start at
\$129.95

Go Kart manufacturing company, inc. 4305 Kennedy Avenue, Calif.

1/4 & 1/2 MIDGET ENGINES

PARTS • ACCESSORIES

NEW LOW PRICES!

Many thanks to our loyal customers who have insisted on the finest Continental Engine parts, accessories and modifications available. As a direct result of this ever increasing market, we have stepped up our manufacturing capacity. Increased production means lower costs — savings that can be passed on to you.

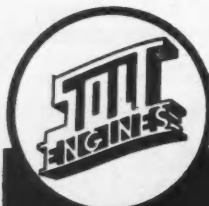


NEARLY EVERYONE USES SOLT PARTS

FIRST CHOICE BY TOP DRIVERS AND MECHANICS

All Retail Sales Prepaid Parcel Post.

FIND OUT TODAY! See your local dealer for your NEW FREE brochure or send 25¢ to:



AUTHORIZED CONTINENTAL SALES & SERVICE

SOLT ENGINES

A Division of Solt Automatic • Mfg. of Revision Screw Machine Parts

5926 Noble Ave., Van Nuys, Calif. • ST. 5-5464

"The Connetti"
MONZA

THE FINEST 2 PASSENGER
1/4 SPORTS CAR MADE!

MODEL 3008 f.o.b. our plant

COMPLETE READY TO RUN
OR RACE. STARTING AT

\$395⁰⁰

3 HP Continental engine, swing-axle front with coil springs, genuine nautical upholstery, full carpeting, racing windshield, automatic clutch and internal expansion brakes combined with Italian styling and American engineering & dependability, make the Connetti "MONZA" the safest, smartest junior sports car in the world. Completely assembled, ready for road or track.



Send for our Free illustrated color brochure

COMPETITION RACING NUMBER FOR
RACING, BONNEVILLE, DRAGS!

EXCLUSIVE FRANCHISED

DEALERSHIPS AVAILABLE

10" diameter white discs, with 6" black numbers, 4" black letters. Weather proof, will not harm finest finish — pressure sensitive adhesive backing. Specify number and class! Most cars use four sets. \$75/set

CHARCON, INC.,

DEPT. CC10C, 7137 LAUREL CANYON, NORTH HOLLYWOOD, CALIF.
P.O. 5-0411

GET YOUR MILLARKEY

COLOR-FAST
&
WASHABLE

SWEAT SHIRTS & T-SHIRTS

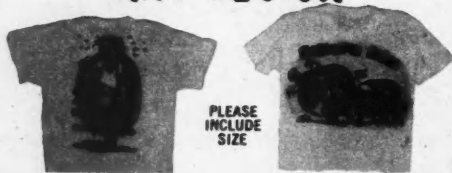
5 BRILLIANT COLORS

LONG SLEEVE \$5.50

SHORT SLEEVE \$3.50

MATCHING CAR DECAL \$4.00

ANY DESIGN

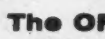


PLEASE
INCLUDE
SIZE



FORD

LINCOLN



MERCURY

BUICK

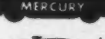
DODGE

DE SOTO



CHRYSLER

PONTIAC



THUNDERBIRD

STUDEBAKER

PLYMOUTH

CADILLAC

CORVETTE

OLDSMOBILE

CHEVROLET

MILLAR

SHEET OF 5 \$1.00

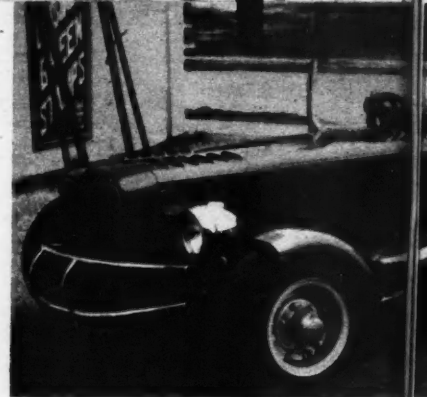
P. O. BOX 667

CC-10

LOMITA, CALIFORNIA

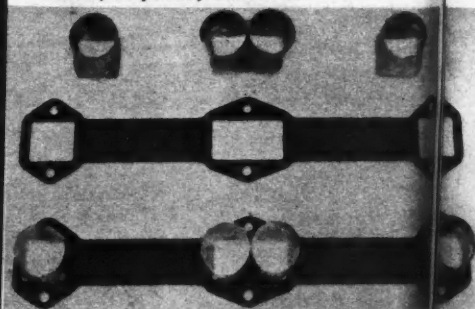
10

CC shops



WEIRD SHIRTS

Now the famed Roth weird shirts are available in short sleeved sizes. One of six patterns are included on shirt prices at \$1.95. Write: Roth Studio, Department cc, 4616 Slauson Blvd., Maywood, California.



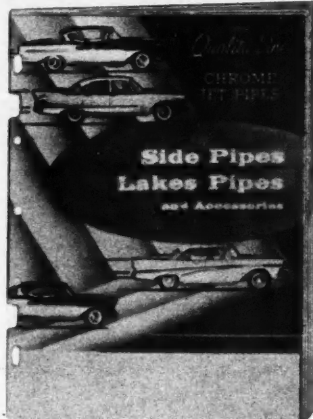
HEADER KITS

Build this header kit for your car. Complete instructions, parts. Write for illustrated brochure, prices. San Diego Steel Products, Dept.-cc, 4955 Weks St., San Diego, Calif.

CAR CRAFT

'DEUCERINO'

Scaled down chopped, channeled '32 Ford; runs as 1/2-midget. Details are similar to bigger deuces. Send 10¢ for brochure. Umbro Engineering, 28-cc Haviland St., Harrison, N.Y.

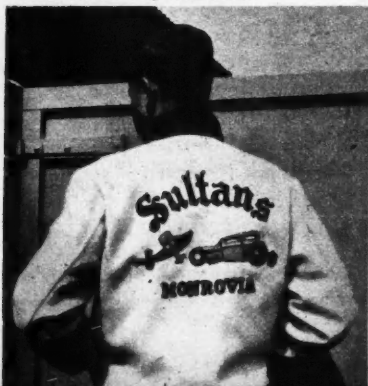


ACCESSORY CATALOG

Accessory items for your custom or stocker are displayed in this new catalog. Complete line of chromed side pipes featured. Free. Write: Grand Automotive Products, Dept.-cc, Melrose Park, Illinois, for copy.

CUSTOM JACKETS

Large variety of colors, styles and emblems. Jackets in satin lined wool, nylon, poplin, or satin. Club discounts. Brochure: 25¢. Write: Athletic Sports Co., Dept.-cc, P.O. Box 748, Burbank 3, California.



Custom



Handsomely styled custom tailored car club jackets, each designed for YOUR club

club jackets

- Large variety of models, colors and emblems
- Custom fitted in satin lined wool. Other jackets also available in nylon, poplin or satin.
- Minimum order 3.
- Special club discounts.
- Send 25¢ (for handling) for free brochure.

Southern California Area! Phone or write for our representative to attend your club meeting with samples.

SAN FRANCISCO REPRESENTATIVE, BAYVIEW 1-9696

Athletic Sports Co.

P. O. BOX 748 • BURBANK 3, CALIFORNIA • TRIANGLE 7-3754

TROPHIES
SWEAT SHIRTS
T-SHIRTS
EMBLEMS

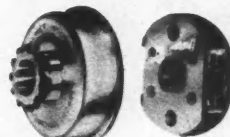
COMET

Automatic Centrifugal CLUTCHES

FEATURING:

Precision-Calibrated Tension Spring
Oven-bonded Heavy-Duty Friction
Lining. ATTRACTIVE CHROME
BRIGHT FINISH
Built-In Clutch Locking Feature
available for racing. Matter of seconds to change from clutch-equipped to constant drive racer.
When ordering please specify:

\$1250
Postpaid



Put the GO in
Your GO-CART



1-7 H.P.
Engines

SPROCKETS AVAILABLE

12-tooth #35 CHAIN
10-tooth #41 CHAIN
11-tooth #41 CHAIN
12-tooth #41 CHAIN

V-BELT
DRIVES
also
available

MANUFACTURERS—DISTRIBUTORS—DEALERS
Write for Prices and Engineering Data
COMET INDUSTRIES, 799 Elm Place, Richmond, Indiana

SHIFT FASTER

... with a Tornado Kit you can convert
from column shift to the world's
fastest floor shift!

Easy-to-install Tornado Conversion Kits contain complete linkage as shown. Everything you need to connect your transmission is right there... plus simple installation instructions.

Available for these cars:
(unless rear trans housing is altered!)

1939-48 Cad & LaSalle
1939-59 Ford & Merc
1958 Pontiac
1949-59 Chev
1949-50 Olds

Kits for other cars to be announced soon.

How to Order: Specify year and model car, also if overdrive or not.
Enclose \$7.50 deposit (balance c.o.d.).

WRITE DEPT. C-10

Lee's SPEED SHOP

1143 E. 14TH ST. OAKLAND 6, CALIFORNIA

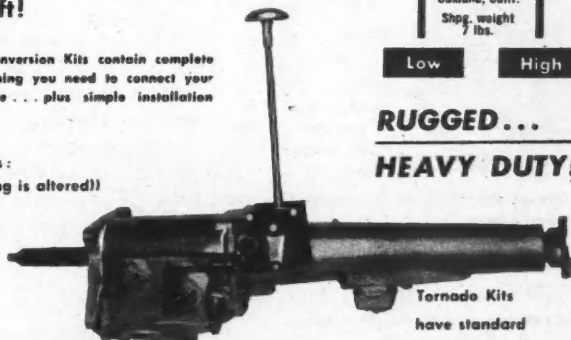
Rev. 2nd

\$34.95
including shift
lever and knob

c.o.b.
Oakland, Calif.
Shpg. weight
7 lbs.

Low High

RUGGED...
HEAVY DUTY!



Tornado Kits
have standard
shift pattern.

Note:

Kits won't fit automatic
transmissions.

Sensational New VIKING CRAFT

INDIANAPOLIS TYPE 1/4 MIDGET

\$545.00

(f.o.b. Anaheim, Calif.)
cars complete
in every
detail



The oldest manufacturer now presents the newest in 1/4 midgets. Features 49" wheelbase, high and low torsion bar suspension, LOW CENTER OF GRAVITY, the UTMOST in DRIVER PROTECTION. Comfortably handles drivers 6-16 years old. Send 25c for literature today. Exclusive franchised dealerships available.

VIKING CRAFT

810 East Juliana Street, Anaheim, California

QUARTER & HALF MIDGET FIBERGLASS BODIES
READY-TO-INSTALL \$39.95 to \$65.50

"How to Build a Quarter Midget" - \$1.00
Catalog 25c
No C.O.D.

HAYMAN 13582 ALBURTIS AVENUE
FIBERGLASS DEPT. CC-10 - NORWALK, CALIF.

train at home for BIG PAY

The amazing new CTI Home Training Plan is so practical it starts you earning spare-time money in weeks—makes you an expert auto mechanic in months. You get Mechanic's Tools and a professional Tune-Up Kit of test instruments. Extra training included in Diesel or Body & Fender Repair. Write today for new, free booklet.

COMMERCIAL TRADES INSTITUTE, DEPT. A-1130
1400 Greenleaf Avenue • Chicago 26, Illinois

Midget Racing WHEELS



4" - 5" and 6" Standard and Super Widths. All hub lengths, all bearings from 1/2" to 1" Bore. Also, OFFSET HUBS for Sprockets or Pulleys.

All Wheels are STEEL, BOLTED construction and cadmium plated.

HIGH SPEED TIMKEN TAPERED ROLLER BEARINGS

3/4" and 1" Bore. In 10", 12" and 14" O.D. Also complete line of industrial wheels.

SOME TERRITORIES OPEN FOR DEALERSHIPS

NALPAK CORPORATION

LETTERS

CHEVY ISSUE INSPIRATION

Dear Sir:

After being inspired by the many fine articles in your magazine I decided to attempt a custom of my own. I got my ideas mainly from your May '57 issue which you devoted to Chevrolets. I am including a picture of my '49 coupe which I am quite proud of because I did all the work on it myself except the painting.

It has been nosed and decked with a short chrome bull-nose half way down the hood. The original taillights were removed and '54 Pontiac taillights are mounted just below the deck lid. I removed the fender trim and stone guards from the back fenders and I lowered the back end two



inches. The engine is stock and the interior is also stock except for custom red carpeting and white padded sun visors. The car has five coats of jet black lacquer.

— Dick Perry,
Harvard, Ill.

One of our aims is to provide inspiration and ideas for our readers to use in customizing their cars. We are glad to see you took advantage of it.—Ed.

PULCHRITUDINOUS PROCLAMATIONS

Dear Sir:

The girl who was in your magazine gave me the uplift and courage to face a new day against this hard cruel world.

Now there is only one thing left to do: end it all. Of course, I could write to you and ask you to put the girl back in your magazine, but I won't do that.

— Scott Wheeler
Fort Worth, Texas

other readers were disturbed about this also, so I thought I'd register my complaint. I have never liked the "midgets", but I guess those sawed-off racers are here to stay, so I'll just grin and bear it. But... girls are here to stay, too, so why not some more coverage on everybody's favorite subject—Girls?

— John Forster
Dallas, Texas

Dear Sir:

I am very familiar with your great mag, "Car Craft". While reading the new issue of Car Craft I came upon your column "Letters" and the articles about the girls that you feature or did feature on the back cover. Around here that was the "It" which made the difference between your mag and the others. I have all of them, I believe, and was shocked to see this extra gone. I have benefited from your mag a great deal, from help and tips for my custom to many hours of pure enjoyment.

— Herbert Poelvoorde
Corfu, N.Y.

Dear Sir:

...I know you're publishing a car magazine, but even the most car-minded person enjoys a sharp girl, unless, of course, he's 'sick' in the head or a female.

— Curly
Waldoboro, Maine

Dear Sir:

We want the GIRLS.

— Bill Molinelli
College Pt., N.Y.

Dear Sir:

In the Letter section of your latest mag, I noticed there are two other readers who feel the same as I: Bring Back The Girls:

— James Hampton
Portland, Oregon

Well now, apparently this question seems to be one sided in favor of the female gender. Be of stout heart and stiff upper lip, gang, we're thinking seriously about your well being and happiness. Think you can wait?

Dear Sir:

Just received my latest issue of Car Craft in its new King size and think it is great. However, I have just one question. "Wha' happened to the 'cool chassis' that always appeared on the rear cover?" I noticed that

\$100 QUESTION

Dear Sir:

In reading your August issue of "Car Craft," I came across the article Build A Custom for \$100. I was very much interested in the article. But I have just one question. It seems to me that the car has been nosed and decked. Then going farther in the article I found the price list. This didn't include the nosing and decking of the car. There is one possibility that I can see, but I don't think you or Barris Kustom would stoop to it. That is covering up the holes of the ornaments by the scallops.

I would like an answer pertaining to this question, as I am very much interested in the forthcoming article.

—Steven Rohrudsey
Glen Falls, N. Y.

You're right, Steve, we wouldn't stoop to that. Apparently you haven't read the article thoroughly. You'll find on page 16 in the lower left corner a reversed panel explaining that the '57 Ford we used had been nosed and decked by its previous owner. We did not perform this operation, and it would be quite ridiculous if we had re-mounted the emblems. This isn't an afterthought on our part, as you'll see on page 16 we mention the fact that it was nosed and decked before our work and it is not included in the price list.

CHEVY FROM CLINTON

Dear Sir:

Enclosed is a picture of my slightly modified '54 Chevy which I hope will rate a place in your great magazine. It is a four door, 210. Modifications



are as follows: nosed and decked, louvered hood, grille was changed by adding extra bars, 10 to be exact. It is lowered two inches in front, three in rear. Taillights have been reworked by using stock hoods and setting three small round clearance lights inside. Headlight rims are painted to give frenched appearance as are taillights. Engine is slightly warmed over Chevy 261 truck which kicks it along at a good clip. Other extras include full length lakes plugs, Dodge Lancer hubcaps, and jet black paint job.

—Ronald Smith,
Clinton, Oklahoma

Your Chevy looks real sharp, Ron.—Ed.

OCTOBER, 1959

FREE!
SPECIAL CATALOG

sent FREE with order for any item from this ad (otherwise send only 25c to cover mailing.)

NEW GIANT CATALOG

Thousands upon thousands of 1959 accessories from our stock of over 150,000 items. Most not available in regular Auto Parts Stores. Limited prices in our history. Order your catalog today!

SAVE NOW... ORDER THESE ITEMS TODAY

ELECTRONIC COIL BOOSTER
Intensifies high voltage, gives much hotter spark for better combustion, MILEAGE, POWER. Increases efficiency of spark plugs up to 50%. Fits any car in 60 seconds. Only \$1.98 ppd.

COIL BOOSTER

\$1.98

SKID-MASTER makes your car safe... more comfortable. Counteracts skids, reduces vibration, improves braking. Heavy 40 lb. Counter weight floats in oil, held on center by powerful tension springs. 130.00 value for only \$12.98.

SKID CONTROL

Deluxe MILEAGE-MINDER
Fuel Pressure Regulator... Neoprene Diaphragm, also Trouble Trap, plus Powerful Magnet to capture iron oxides, rust flakes, etc., that clog carb needle. Complete with fittings. Only \$8.95 ppd. Gas saver!

SAVE GAS! MILEAGE MINDER

TAYLOR ALTIMETER... great for trips... How "steep" the hills, how deep the valleys. Also Barometer. Complete... no wires to connect. 0-5000 ft. \$8.95; 0-10,000 or 0-15,000 ft. \$19.95 postpaid. Wonderful.

SAVE GAS! MILEAGE MINDER

PLASTIC STEEL (20% plastic, 80% steel) handles like putty, hardens into steel. Sticks to anything. For repairing pipes, faucets, lawn mowers, furniture, engine blocks, gas tanks, anything. Complete kit \$2.25 ppd.

PLASTIC STEEL

NEW CHROME KITS \$4.95

"INSTANT-CHROME" plate anything. Sensational invention, gleaming surface easily applied to rusty bumpers, trim, plumbing fixtures, etc. No need to remove trim for replating. Only \$4.95 complete, postpaid.

NEW CHROME KITS

"PERMA-BRONZE" Filter lasts FOREVER. (Rinse and it's like new). SAVE MONEY... oil lasts LONGER, engine lasts longer. BY-Pass element \$4.95, Full-Flow \$8.95. Complete Filter (with new case) \$12.95 postpaid.

POROUS BRONZE OIL FILTER

"FABRIC COAT" sprays on color, covers up, restores, preserves the beauty of your upholstery. Permanent. won't rub off or fade. Red, Brown, Tan, Rose, Maroon, Yellow, Greens, Blues, Grays, Black. 12-oz. can \$2.95 ppd.

"FABRIC COAT"

SPEED-ALARM can save costly fines. Set control knob to maximum speed you wish to observe. Red light flashes warning, no disturbing buzz, no loss of speed when you need it. No holes to drill. Specify 6-12 Volt. Only \$8.95 ppd.

SPEED-ALARM

LEFT FOOT ACCELERATOR

With LEFT FOOT THROTTLE you can use right foot on accelerator. Lets you ease off on gas as you apply brake, stop quicker and smoother. Reduces fatigue, avoids leg cramps on long trips. Only \$3.95 ppd.

LEFT FOOT ACCELERATOR

"AUTO-TIMER" Spark Selector. Get more POWER, up to 30% MORE gas mileage, quicker starting. Adjust spark instantly from your dash for all driving conditions. Triple chromed. Only \$8.95 postpaid. Great item.

"AUTO-TIMER"

NEWHOUSE... WORLD'S LARGEST

Over 150,000 Special Auto Parts in Stock
SATISFACTION GUARANTEED OR YOUR MONEY BACK

Triple Chromed "TEAR-DROP" BUMPER SPOTS... latest California craze. Large 5" glass lens. Fully adjustable, just like stylish genuine spotlight, without the expense. Only \$13.95 complete (with brackets); \$27.45 pair, postpaid.

Always a CLEAN RADIATOR (COOL ENGINE) with amazing "NEUTRA-ROD." Stops rust, scale, electrolysis, boiling engines. Copper grounding chain, Neoprene insulators, Magnesium Element. Only \$1.95 PPD.

CARBURETOR ADAPTERS—Install bigger carb for more POWER, or smaller carb for greater ECONOMY. 2 bolt X 3 bolt \$2.99; 2x4 \$2.99; 3x4 (shown) \$3.99; 4x6 \$5.99; Wide Base Adapter \$4.95. Postpaid.

Easy "bolt-on" job to harness BIG 6V V-8 engines to standard Ford-Mercury transmission. Chevy V-8 to early F-M \$47.99, late \$34.99; 49-50 Olds V-8, early \$23.25, late \$42.99; Fourteen other models.

Crankcase "NEUTRA-PLUG" has Active-Magnesium to NEUTRALIZE acids. Alnico MAGNET traps abrasive particles. Double engine life, oil lasts longer. NEUTRA-PLUG only \$2.45. "Deluxe" Model \$2.95 postpaid.

MAKES GEARS QUIET

AIRPLANE-TYPE "TRIPLE-FIRE" SPARK PLUGS give up to 30 more HP, greater mileage, faster acceleration. Outlast "old-style" plugs 3 to 1. New cooling fins, extra-rugged insulators, one-piece shell. \$1.19 each, set of 6 \$8.92 ppd.

Attractive TRIPLE-CHROMED PANEL containing 5 toggle switches. For dash or any flat area. Ideal for these extra accessories—Fog lights, Wheel lights, Rear Speakers, Engine Light, Elec. Deck Latch, etc. Rearain \$3.95 postpaid.

Chrome Fuel Filter

RESERVE FUEL TANK mounts under hood... holds 36 gal. emergency fuel. Out of gas? Just turn the auxiliary valve. Complete with tank, fuel filter, shut-off valve. Flexible hose and brackets. Terrific value \$4.95 ppd.

Easy "bolt-on" job to harness BIG 6V V-8 engines to standard Ford-Mercury transmission. Chevy V-8 to early F-M \$47.99, late \$34.99; 49-50 Olds V-8, early \$23.25, late \$42.99; Fourteen other models.

—RUSH ORDER COUPON—

NAME..... (Print)

ADDRESS.....

CITY..... ZONE..... STATE.....

You need send only 20% with Coupon... we will ship C.O.D. for the balance. Satisfaction guaranteed.

Car Make..... Year..... Model..... No. Cyl.....

Enclosed please find \$.....

SEND ITEMS BELOW AT ONCE:

Quantity	Description—Give info	Price

Calif. residents add 4% sales tax.

Newhouse
Auto Parts & Accessories
WE SHIP ALL OVER THE WORLD

5405 Beverly Blvd., Dept. 191, Los Angeles 22, Calif.

controversial

LESS THAN TWO Years ago a short, lean-faced, Florida hot rodder named Don Garlits was fighting unrecognized battles for local drag strip honors. Today, his name is synonymous with the words "drag-racing" and is as famous as Southern politics and just about as controversial.

Garlits skyrocketed into this precarious national prominence on the concrete Brooksville, Florida drag strip. There, on a warm, sunny Sunday, the Tampa hot rodder whose major ambition is to go fast, sat low in a Chrysler-powered, needle-nosed dragster.

Helmeted, goggled and nervous, Garlits' biggest worry was the starter's flag. In front, the starter raised his arm, waggled the flag several times, then, in a blur of green, dropped it to his side.

The response was instantaneous: the engine quickly revved to a high-pitched scream, rear wheels spun, burnt rubber, then stuck and pushed the car from the line in a blast of odorous exhaust. It was a sequence of events that had become the Garlits trade-mark.

For a second the car fishtailed, then straightened. Garlits, knuckles white around the half-wheel, kept the car arrow-straight as it diminished down the center of the strip. There was a high-speed, fast-moving blur as the dragster flashed past the timing lights. Immediately the announcer's voice, tense and excited, barked over the loudspeaker, "He's broken 175."

"KING OF THE DRAGS"

nine seconds changed Don Garlits from a small town hot rodder into one of the fastest and most controversial figures in U. S. drag racing

By Bob Behme





"KING OF THE DRAGS"

The less than nine seconds it took Garlits to cover the quarter mile that day changed him from a small town dragster pilot into one of the fastest and most controversial figures in U. S. drag racing.

"Those few seconds," wrote one reporter, "not only changed Garlits, but changed American hot rodding as well."

175 had long been considered a "tough" mark, a nearly impossible barrier reserved for some well known drivers. A covey of west coast drag handlers had been trying for it. Few had come close. None had made it.

The excitement of the crowd as Brooksville was small compared to the furor across the country. Response to the news that an unknown Florida driver, running on a little known Florida strip, had done what top drivers had failed to do, was loud, instantaneous and violent.

"There must be something phony

about the clocks," some drivers charged. "It is the concrete strip," the experts theorized. "Let's see what happens when he runs on a real strip," some writers taunted.

The controversy which followed the amazing run was totally unexpected by Garlits, a modest, self-effacing lead foot. To him, the run, once it was completed, was an established fact. He was startled by the protesting storm.

He realized early that local competition would not subdue the dubious comments that followed his history-making runs at Brooksville. The only solution, he decided, was to compete in other sections of the U.S. where strips and clocks could not be challenged. He made a whirlwind trip through the east and mid-west. At Montgomery, New York he charged down the quarter mile in 8.36 seconds. He took on all comers on strips from Cordova, Illinois to Caddo Mills, Texas. In most cases he broke 170. He lost only one race.

Early in the tour he had run against a very experienced, hot driver from Detroit, Michigan, Setto Postoian. Garlits had run at Cordova and in the midst of a run had blown a clutch. Don and his brother worked feverishly, replacing the clutch before time ran out. Postoian was at the line when Garlits came up.

The flag dropped. Garlits stomped on the throttle the same instant Pos-

toian's foot shoved forward. The two cars roared from the line, nose to nose. Slowly, Garlits' car pulled to the front, rear wheels biting surely against the asphalt. The seconds ticked away as the two cars, still less than a length apart, roared toward the timing lights.

Three quarters of the way there was a quick, explosive sound. Postoian shot ahead. Garlits slowed. The second clutch, together with the lightweight aluminum flywheel had disintegrated.

Despite the mid-west tour with spectacular wins and spectacular times, the controversy refused to die. Garlits was accepted as fast, but not the fastest.

"The only thing to do," a friend told him, "is to go west, to California. If you can beat the hot dogs out there they will have to believe you."

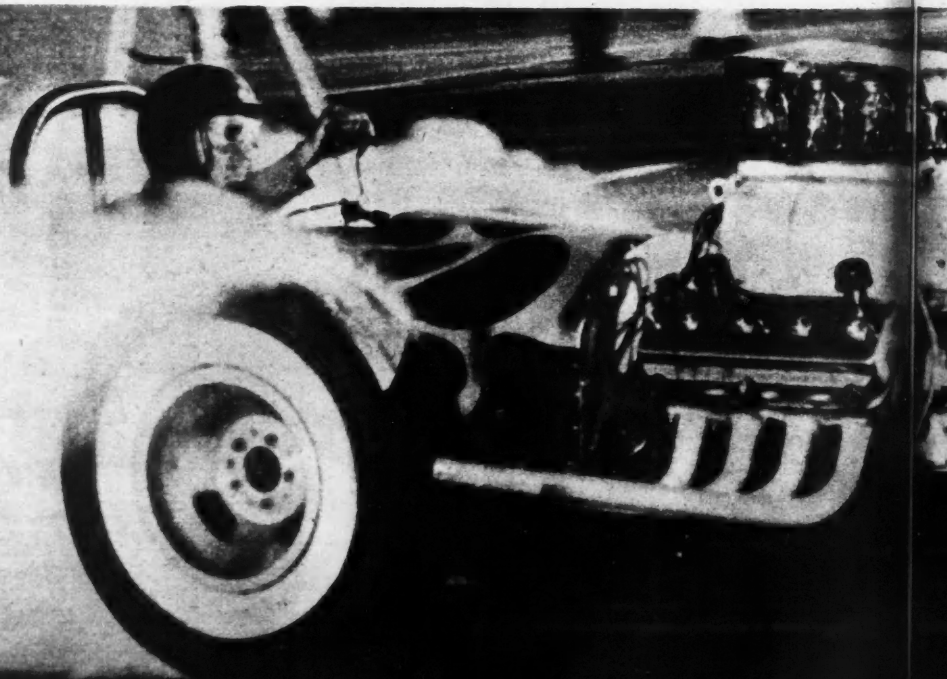
"That," Garlits replied, looking at his stock displacement, unblown Chrysler, "is easier said than done."

But Garlits towed his dragster across the country in the spring of '59. His first stop was Central California. The fastest California cars were on hand to greet him.

"If ever there was a race designed to separate the men from the boys," one reporter wrote, "This was it!"

By Sunday, the record-breaking crowd was worked to fever pitch. Garlits had blown one of his two engines on Saturday. Only by work-

Photo by D'Olivo, Hardee





ing through the night had Don and his brother replaced it with the spare. He was on the line, red-eyed and tired, but full of fight. To that point, Garlits had been unquestionably outclassed, but he had managed a good showing. Beside him was the fast, big Kagle-Herbert car. The stage was set.

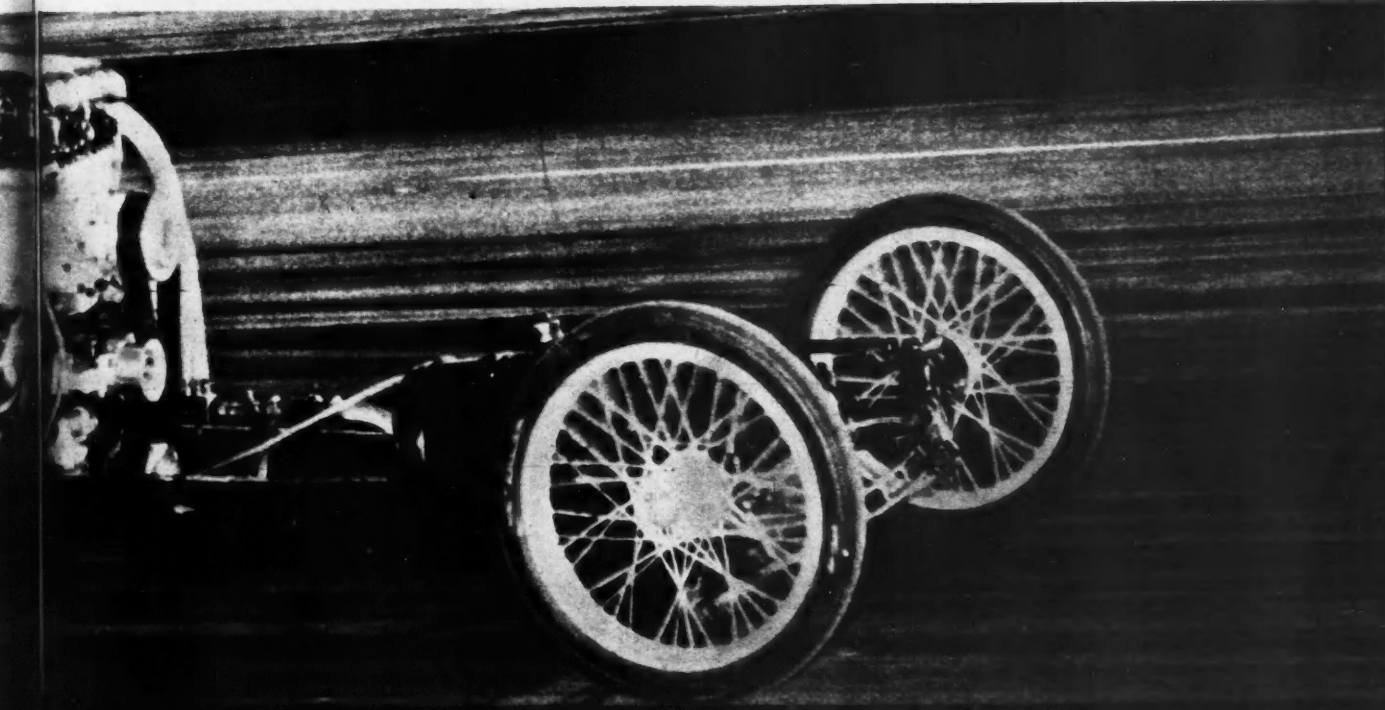
During the morning the fast machines had been narrowed down. Ernie Hashim had run, clocked 161, and lost to Setto Postoian. Hank Vincent's "Top Banana", lined up earlier with Garlits, had lost a clutch at the start and forfeited when time ran out.

The starter signalled. Garlits pumped the throttle furiously. The Kagle-Herbert car jumped from the line, rear wheels spinning hot rubber. Smoke poured from Garlits car but it stayed on the line, a rod punched through the block.

"Why don't you give up and go home?" a spectator taunted Garlits as he pushed the car back to the pits. "You'll never make the Northern California meet."

For two weeks, Garlits and his brother worked around the clock, rebuilding the two engines. He had learned from the Central California race that he was up against an impossible situation, running an unblown powerplant. He built a new engine, bored and stroked to 454 cubic inches. On top he mounted a 6-71

(Continued on page 56)



FLEETLINE IN

It takes a second look to determine where it all started with Art Jones' cleverly restyled custom car



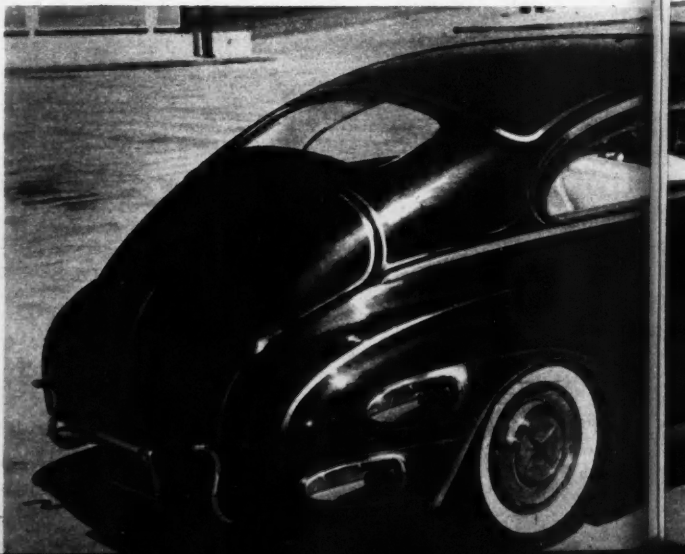
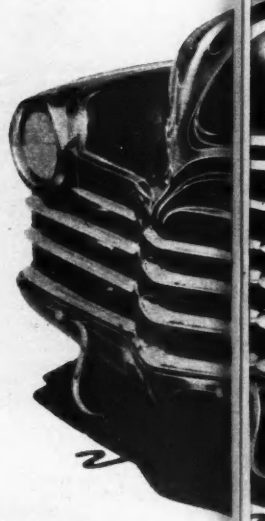
Extra zip is given to Art's custom by hopped up Chevrolet truck engine. Displacing 248 cubic inches, mill runs Jahns pistons, Iskenderian track cam, Mallory Mag-Spark, chopped flywheel. Corvette '6' intake manifold and headers are run.



Gene's Custom Shop in Art's home city of Portland, Oregon performed metalwork on his sleek looking '48 Chev. Most unique feature of the car is the hardtop styling derived from a sedan.

Filled, peaked and pointed hood dips toward molded cavity which houses extra long grille bars. Unusual S-shape nerf bars are run front and rear. '53 Merc rings used on frenched lights.

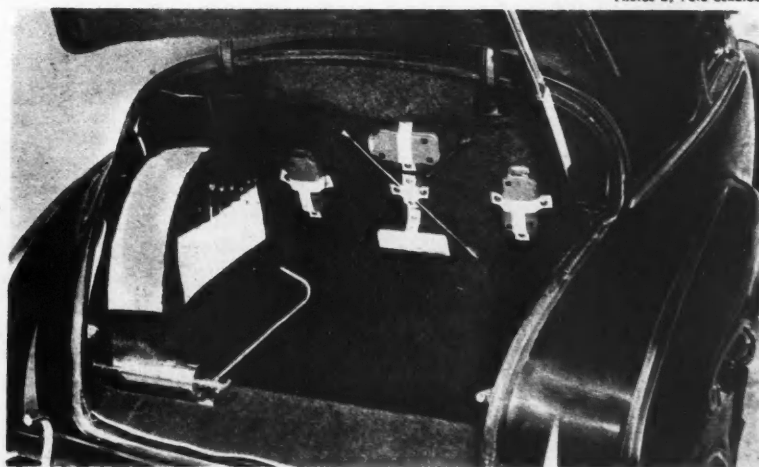
Filled fender seams at front and rear, radiused and flared wheel wells, are some of the items which make this custom outstanding. Novel taillight setup features four 1957 Corvette blinkers.



DISGUISE



Photos by Pete Sukaloc



RACING BLOWERS



Part 1

*Competition Assembly
and maintenance*

for 371-471-671

GMC Superchargers

ALTHOUGH THERE ARE many different types of air superchargers available today only three general units are suitable for automotive use. The centrifugal fan type, the rotary vane, and Roots-type positive displacement units.

At one time the centrifugal supercharger was the type most commonly found, but at present McCulloch is the only manufacturer of these units. Although suitable for use on a conservative street machine, unless driven in dual stage the McCulloch lacks the low end



Text and photos by John Geraghty

performance necessary for drag racing competition.

The rotary vane supercharger although limited in R.P.M. and size makes a good unit for the smaller cubic inch engines and is widely used in England.

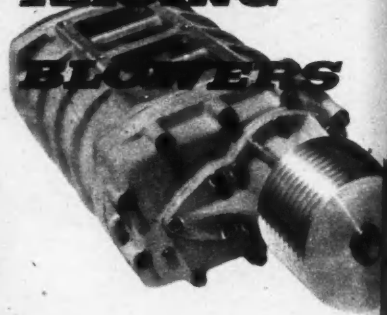
The Roots-type positive displacement supercharger is currently the most common, is readily available and best adapted type for the late O.H.V. engines.

The GMC Roots-type supercharger is a very simple unit and its operation is as follows. Two interlocking rotors, normally with four lobes on each, rotate in a

bisymmetrical casing. Air is forced into the inlet side by atmospheric pressure and carried through the casing to the outlet side where it is exhausted. This process can best be associated with the common gear type oil pump.

"Positive displacement," a term which is commonly associated with all Roots-type superchargers, is based on the theory that each revolution of the supercharger produces an exact measurable volume of air depending on the size of the unit. Although this theory is quite readily

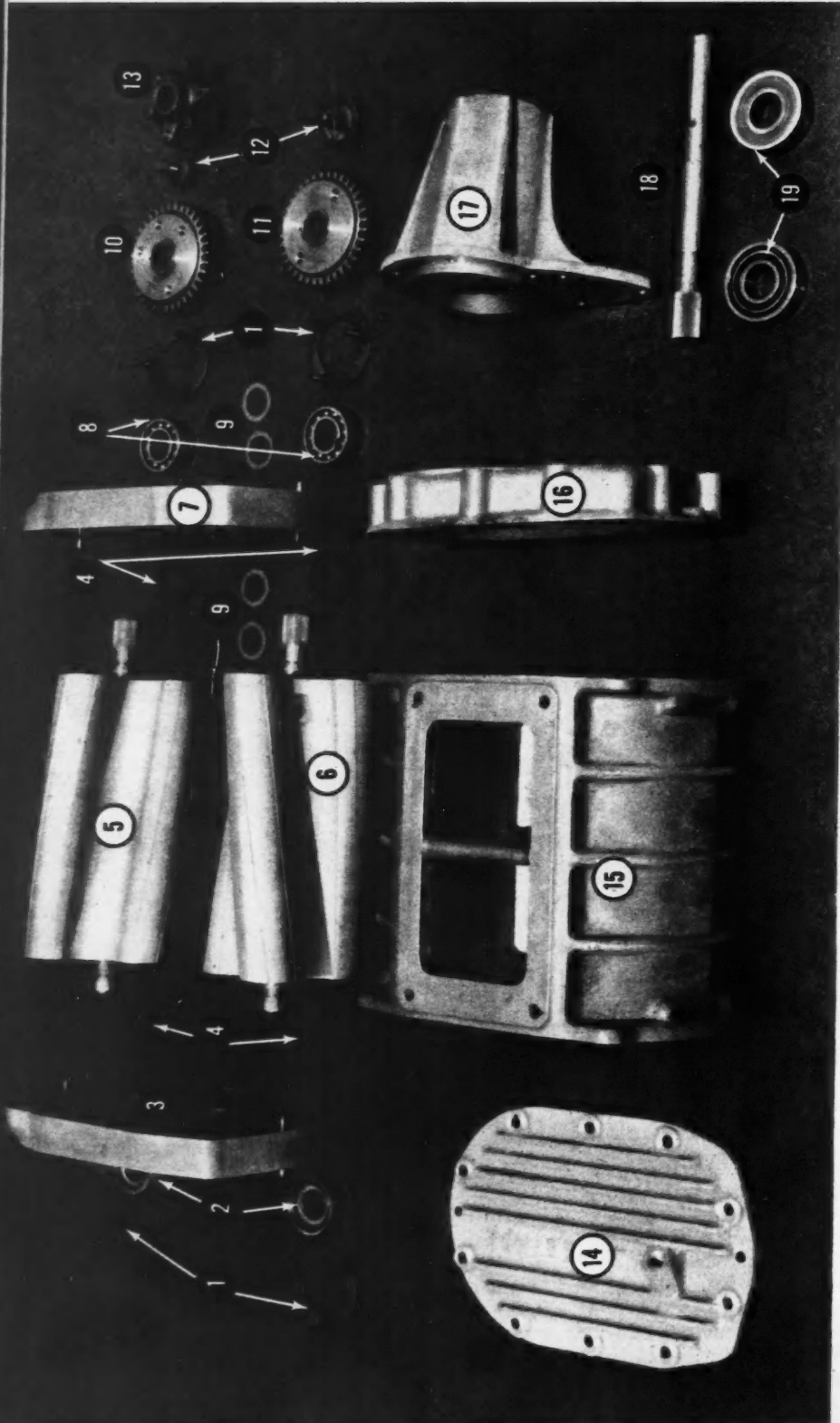
RACING BLOWERS

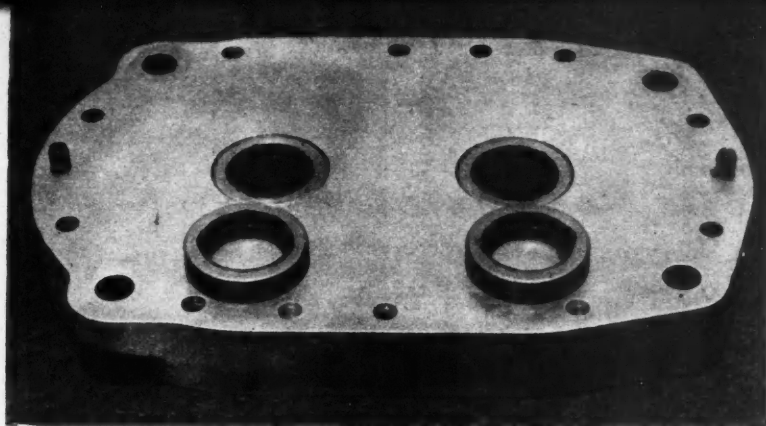


1. Bearing retainer rings and bolts
2. Rear bearings
3. Rear bearing support plate
4. Neoprene oil seals
5. Main drive rotor
6. Driven rotor

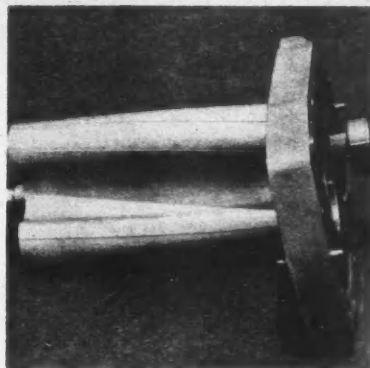
7. Front bearing support plate
8. Front bearings
9. Clearance shims
10. Main drive gear
11. Driven gear
12. Main retainer cap screws and washers
13. Main drive flange

14. Special rear plate
15. Rotor case
16. Front cover
17. Special snout housing
18. Main drive shaft
19. Snout bearings, front and rear





1. First step is to install neoprene seals. Taper toward outside of plate.



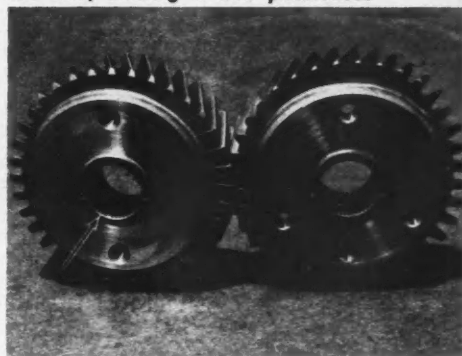
2. Splined end of rotor is inserted thru seal; bearing is now positioned.



3. Bearings are installed with the use of brass drift and small hammer.



4. Bottom both bearings, then adapt retainer rings. Torque to 25-30 lbs.



5. Refer to story for correct assembly of gears. Unmachined driven gear (arrow).



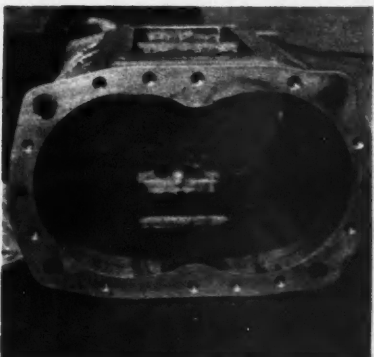
6. A small amount of light oil is used on gear splines to ease installation.



7. Both gears are installed at the same time to eliminate rotors binding.



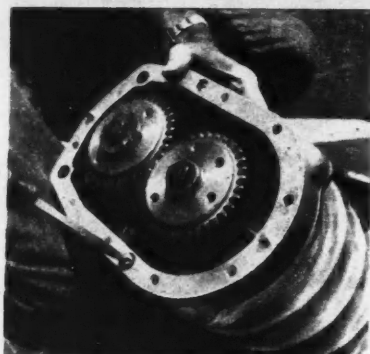
8. Install retainer cap screw/washers. Small washer retains main drive gear.



9. Illustration above shows complete bisymmetrically designed rotor case.



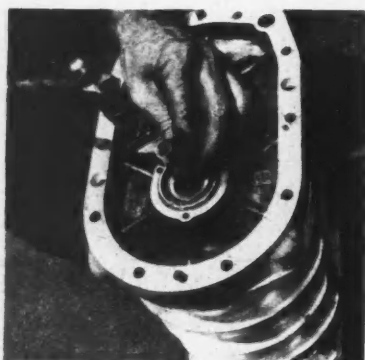
10. Thoroughly clean all the mating surfaces, then install rotor assembly.



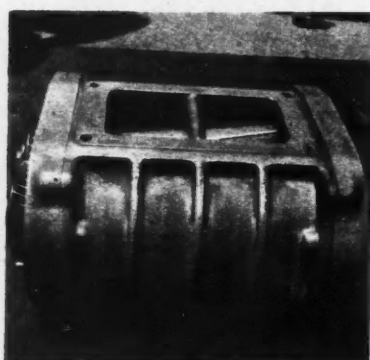
11. Front plate and case are secured together by tightening retainer screws.



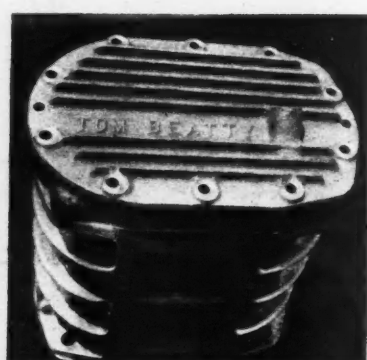
12. Rear bearing support plate is now positioned; take care with alignment.



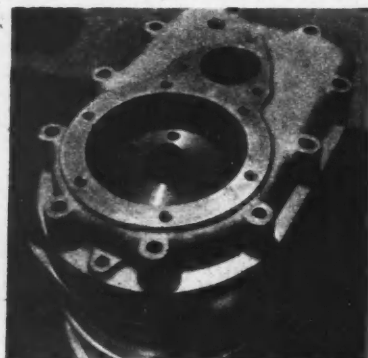
13. Both rear bearings are now aligned and driven into place as shown above.



14. At this point all the clearances are checked out, prescribed by story.



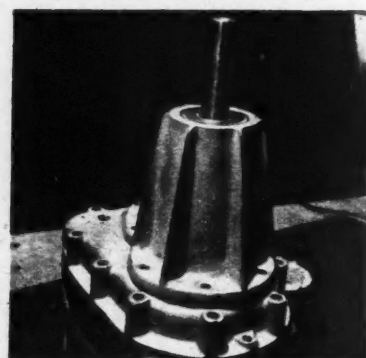
15. The rear plate is installed and evenly torqued to 20-25 foot pounds.



16. Front cover is adapted to unit; large opening over main drive gear.



17. Main drive flange is placed over main drive gear, then bolted in place.



18. The special "snout" assembly is now positioned and tightly secured.



19. Stock oil drain holes are plugged; use 19/32-inch cup type Welch plugs.



20. To modify clearances, gear puller is needed. Remove gears simultaneously.

accepted by most, it doesn't function quite this well. In order to reduce wear and excessive noise, clearances are built into the unit between rotors and casing. With the compression of air taking place in the manifold a certain slip loss is inevitable. This figure is dependent upon two major factors, the speed of the supercharger and the amount of desired boost. In order to benefit from the more positive manifold pressure available at low R.P.M. with this type of pressure induction, these clearances should be exact. This will also cancel the danger of rotor growth at high R.P.M. and reduce the ever-present high mixture temperatures.

Because of the scarcity of reliable information on the assembly of GMC 371, 471, and 671 superchargers, we have prepared a complete step-by-step photo series thru the co-operation of Tom Beatty, of Beatty Engineering, who in his own right is one of the most experienced men specializing in competition superchargers.

The first operation in the preparation of the unit will be the close examination of all the parts for excessive wear. The proper procedure is to take each part individually and wash it, paying particular attention to nicks or sharp edges on the rotors which should be filed perfectly smooth to eliminate high spots. The bearings should be checked for wear on the rollers and races; if worn, they should be replaced.

After the inspection and replacement of necessary parts, a clean, dust free working area must be selected for assembly of the supercharger.

To begin assembly the four neoprene oil seals are prepared for installation into the front and rear bearing support plates. This is accomplished by applying a thin coat of gasket sealer around the outer diameter of the metal face making sure not to allow any excess sealer to come in contact with the neoprene surfaces. The flat neoprene inner sleeve of the seals must be installed with the taper toward the outside of the bearing support plates, allowing assembly of the plates without damage to the neoprene liner. Being a

press fit, a small arbor type press should be used to install the seals. If a press is not available a soft mallet may be used with care taken to install the seal evenly.

Now we are ready to install the rotors which will be referred to as the "main drive" and "driven rotor". The driven rotor is recognized by an unmachined area in the driving splines which protrude from the front of each rotor. This splined end of the driven rotor is inserted through the oil seal of the front bearing support plate opposite the rounded shoulder area. The front bearing may now be installed with the use of a brass drift and a small hammer. The bearing is bottomed into the front support plate. The main drive rotor is installed by interlocking the rotors and following the same procedure.

Both bearing retainer rings may now be installed. Three cap screws hold each retainer in place and should be evenly torqued to approximately 25-30 foot pounds.

The next step is the installation of both main drive and driven gears as a unit. The unmachined splines of the driven rotor must now be matched with the gear teeth of the driven gear. Both gears are installed at the same time, otherwise the rotors will bind together.

The main retainer cap screws and locking washers are installed with the larger washer retaining the driven gear. Each gear is brought to bottom and torqued to approximately 75 foot pounds.

The complete rotor assembly is ready to be inserted into the casing, care is taken to match the rounded shoulder area between the front plate and case. The front plate retainer screws are installed to marry the plate and casing and prevent the unit slipping apart during the remaining procedures.

The rear bearing support plate is installed and the rear bearings driven into position. Both rear bearing retainers are carefully tightened and the rear plate retaining screws installed as in the assembly of the front unit.

The clearance may now be checked and adjusted as necessary. The desired clearance for extreme R.P.M. operation under relatively high manifold pressures are as follows:

Clearances

(1) Between Rotors	.012
(2) Between case and rotor, inlet side	.011
(3) Between case and rotor, exhaust side	.007
(4) Front bearing plate and rotor	.009
(5) Rear bearing plate and rotor	.013

These clearances can be checked by rotating paper of a given thickness through the rotors and between the case.

Rotor clearances are corrected by installing a shim between either of the front gears and bearings. This staggers the gears which are helically cut and causes one to climb the other, therefore the clearances are decreased or increased, whichever is desired.

The rotor to bearing retainer plate clearances may be changed by installing shims between the rotors and bearings. This spaces the rotor either forward or to the rear, whichever is necessary.

The clearance which gives the least problem is between the rotors and case. There are no adjustments for this clearance. Any increase desired must be machined into the case.

After the recommended clearances have been achieved a special rear plate is installed and torqued evenly to approximately 20-25 foot pounds.

The front cover is installed with the large hole over the main drive gear and tightened in the same manner as the rear plate.

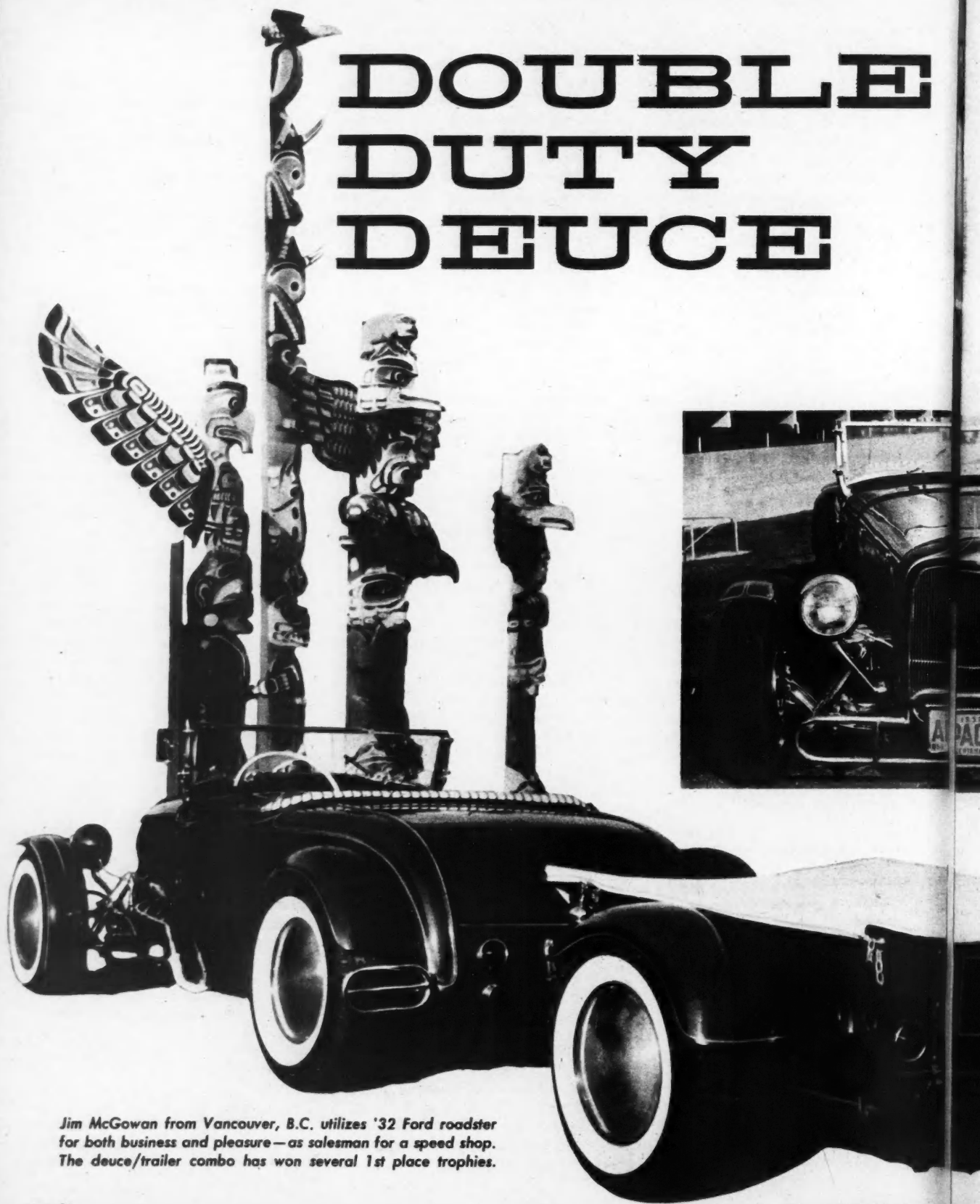
The main drive flange is bolted to the main drive gear and the special snout assembly is positioned and tightened in place.

The oil drain holes, located in the exhaust side of the blower, are now plugged with $\frac{1}{8}$ -inch type Welch plugs. Some builders actually tap these holes to $\frac{1}{8}$ -inch pipe, then utilize an ordinary pipe plug.

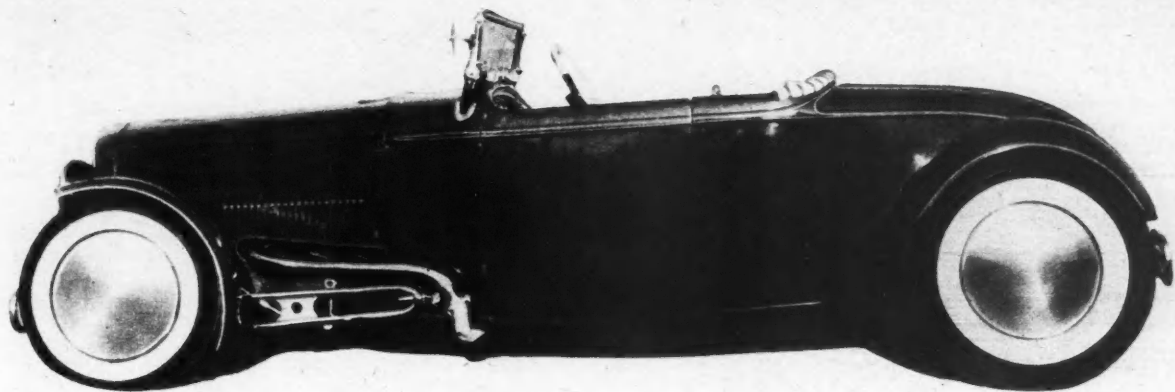
There are so many different types of drives and ready-made kits available for these superchargers that it is sometimes difficult to select the proper unit for your particular installation.

Next month we will deal extensively with this subject and try to help solve this problem by pointing out the advantages as well as disadvantages of each.

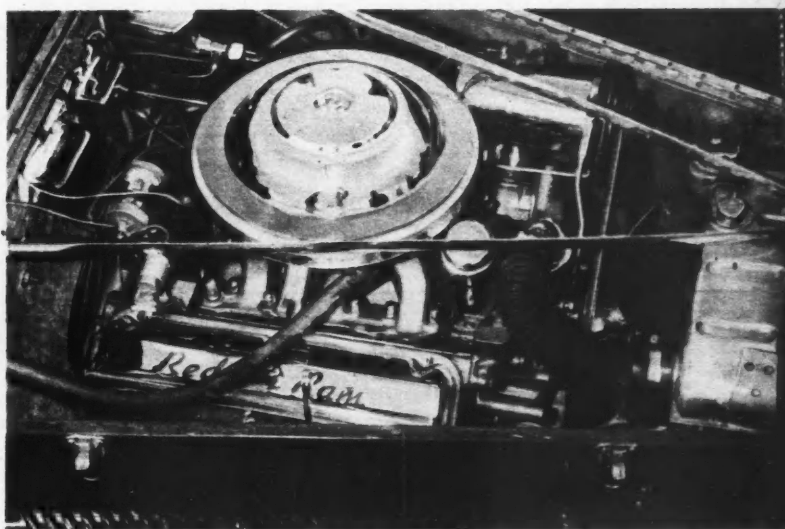
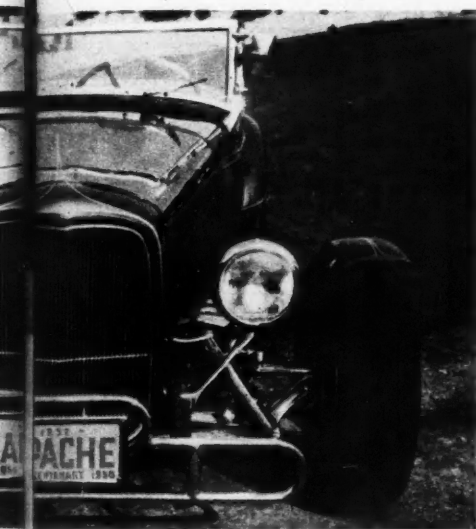
DOUBLE DUTY DEUCE



Jim McGowan from Vancouver, B.C. utilizes '32 Ford roadster for both business and pleasure—as salesman for a speed shop. The deuce/trailer combo has won several 1st place trophies.



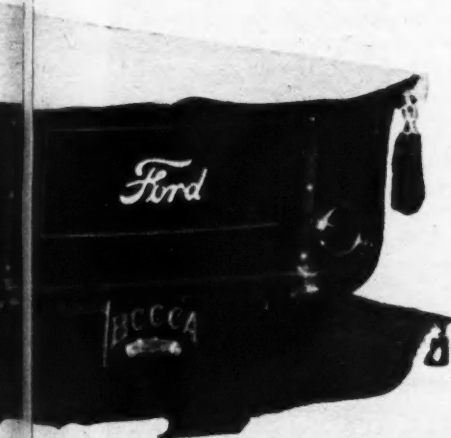
Epitome of many rodders is this '32 Ford with channeled body and chopped windshield. Apache Red lacquer enhances trimless body; special louvered hood side panels. Bobbed cycle fenders are run. Chassis is '32 Ford with 3" dagoed front axle and '34 Ford rear unit. 5:90 front tires combined with 8:20 rear lend rake; note spun aluminum 'Moon' wheel discs.



Sturdy front nerf bar protects chopped and filled deuce grille. Headlights, mounted in standard roadster manner are universal type. Note nameplate.

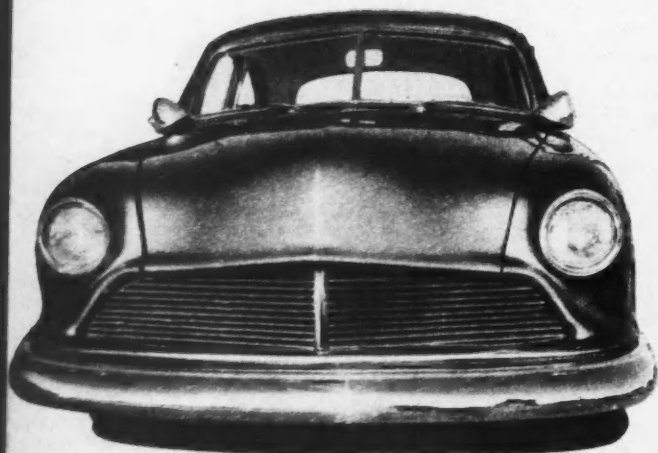
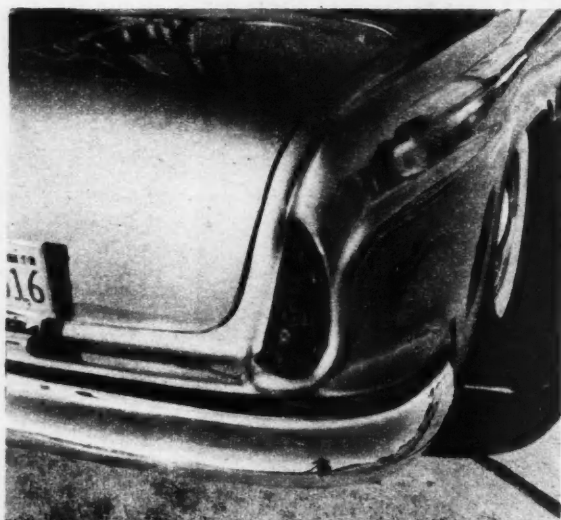
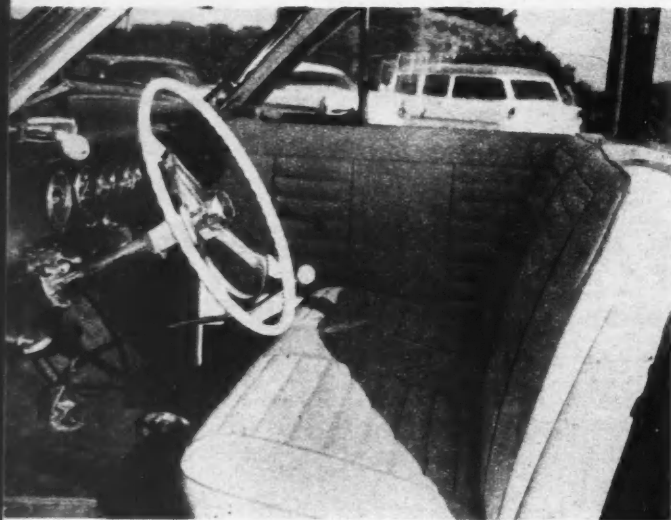
Rompin' Red Ram engine of '54 Dodge vintage powers roadster. Bored over, mill has $\frac{3}{4}$ cam, Jahns pistons, head modifications, and Holly 4-barrel carb.

Chromed front end has Monroe shocks for snubbing action, 'business' end of '37 Hudson steering gear, '48 Ford Spindles, '40 Ford hydraulic brakes.



Photos by Bud Long

STYLED FOR A YOUNG MAN'S FANCY



Burt Hamrol's radically redesigned '50 Ford was done by Hal's Body Shop, San Rafael, California. Extensive use of conduit can be seen surrounding the '57 Chrysler taillights and on radiused wheel wells.

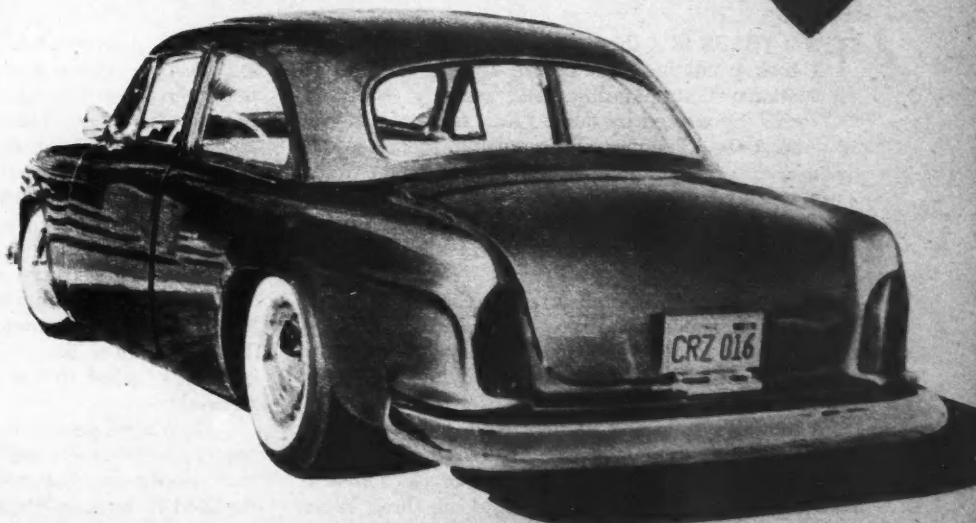
Sparkling white Naugahyde interior was stitched by Galloway Zipf Upholstery in San Francisco. Instrument panel was hand formed of sheet metal—houses eight S.W. gauges and hand pump for fuel pressure.

Extended hood capped with large roll conduit forms part of the grille cavity. Molded gravel shield is lower part of cavity, extends over top of bumper. Grille is made of flat bar stock which is chromed.



Photos by Frank Faraone

Rear gravel shield is french-
ed, extended over bumper
as on the front. Shaved deck
lid is sectioned 3 inches and
has corners rounded. Note
how windsplits are length-
ened and trailed downward,
leading to taillights. Burt has
spent 2½ years on the car.



MACADAM



BY DON EVANS

TWO YEARS IS A short time. But that is all the time it took from the birth of the karting sport to its 1st National Championship, held recently in Azusa, California. Sponsored by the Go Kart Club of America and the Azusa Chamber of Commerce, the three day event drew over one hundred entries from eight states. The Go Kart Raceway, an asphalt surfaced 4/10ths of a mile track with seven left and four right hand turns, was a new experience for many drivers who heretofore had driven only on flat, oval tracks. Friday was dedicated to practice to give all drivers a chance to get the feel of the miniature road race course and make necessary changes in gearing, etc. Saturday offered more time for practice as well as being qualifying day for the big race-day—Sunday.

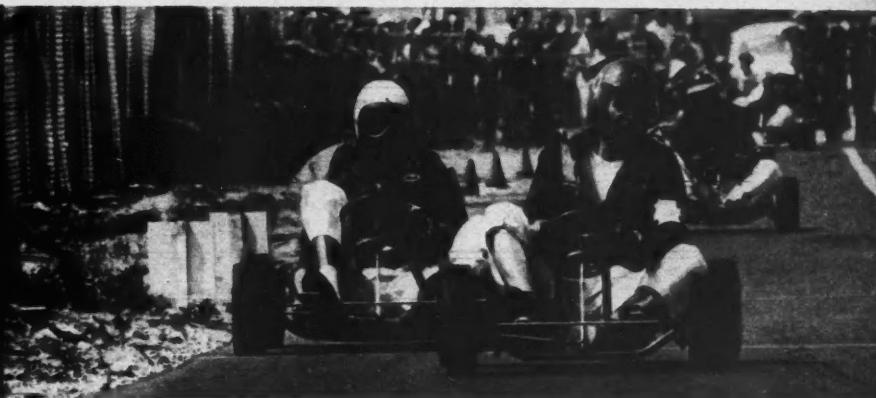
A scoring system new to the karting sport was introduced at this first annual event. It is based on the Moto Cross point system long used in motorcycle and boat racing competition. Each class runs in three races,

points being awarded drivers in respect to their finishing position. The points are then totaled, the winner being the driver who has collected the most points. The A Class (5.8 cu. in. max.), B Class (11.5 cu. in. max.), and C Class (16.5 cu. in. max.) each ran three 20-lap races. Only the top twenty qualifiers in each class were eligible for the main events.

The thrills of kart road racing were readily evident to the throngs of spectators. Seeing a machine rounding a sharp, un-banked turn at near 50 mph with the driver sitting just inches from the ground, one can see why this is the fastest growing motor sport in the nation. The professional-like driving of all the entrants kept the onlookers "glued to the rail" throughout the race-day schedule.

When word gets around of the fun had by this year's competitors, winners and losers alike, the well organized and smooth run National Championship for karters is destined to be even bigger and better next year.

Karting's First National Road Race Championship proves battle royal for driving skill, special designs, new horsepower, and manufacturers' competition



Photos by D'Olivio, Broffier, Hall



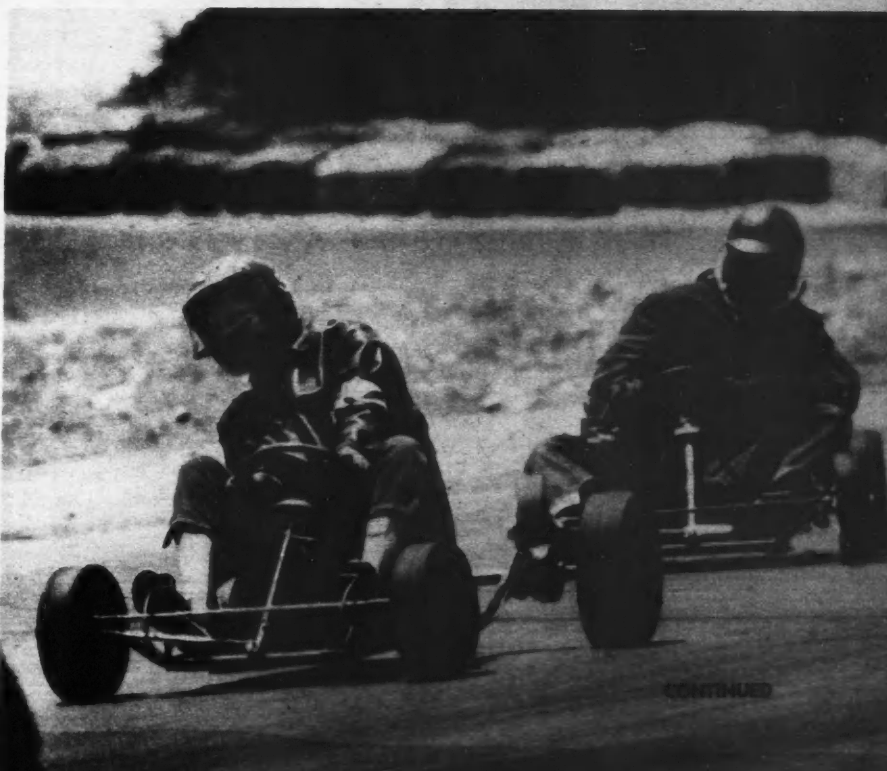
TOP • Dick Geer, driving a twin McCulloch powered Bug, leads Chuck Balsiger into a turn. Dick was only driver to win all three races in class, emerged '59 National Champion with 1200 points.

ABOVE • Determination shows on face of Jimmy Yamane as he powers thru a corner. After blowing his engine in the first heat, Jim borrowed another and came on to win A Class victory.

ABOVE RIGHT • Well organized pit area was scene of constant activity during three day event. Manufacturer team entries were numerous, competition keen.

RIGHT • Crowd pleaser, Faye Pierson, gives Jim Yamane a run for his money. Right and left "body english" is needed in short S-turn. Faye took second place in A Class after breaking a chain in one heat — showed fine driving skill.

OCTOBER, 1959



CONTINUED

MACADAM MANIA

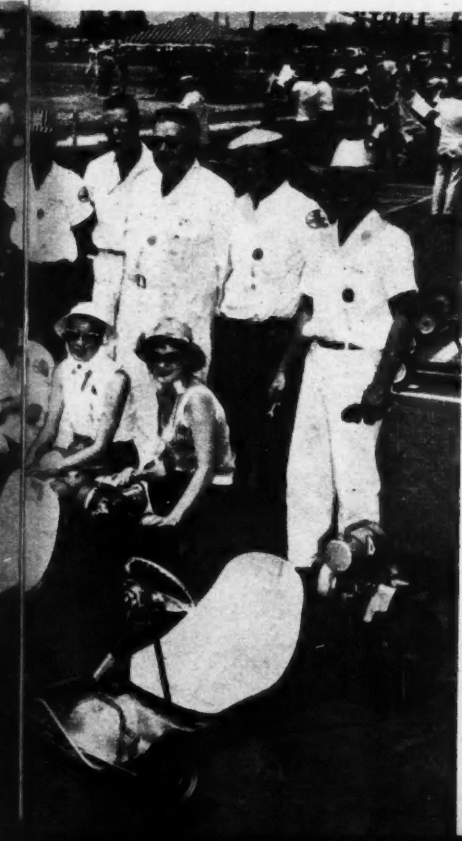
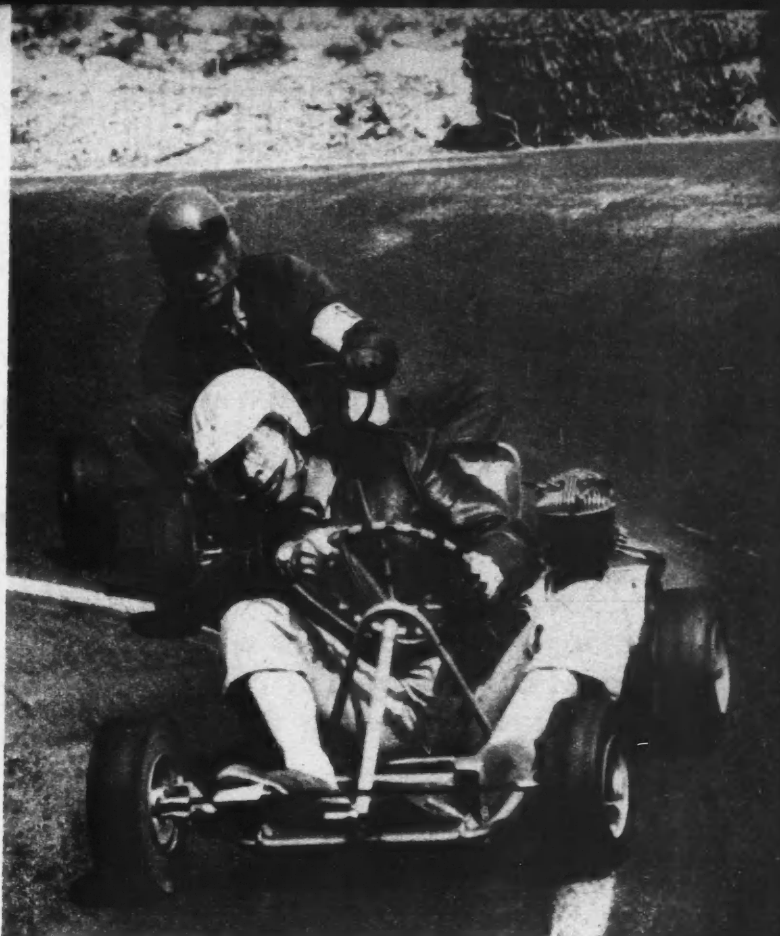
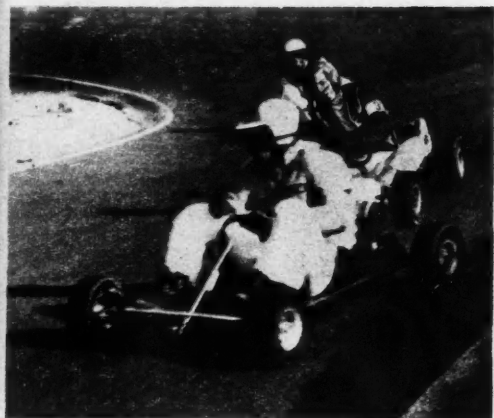
Two cuties with calluses! Jan McCulloch from Fort Worth, Texas, discusses the hazards of driving with Faye Pierson. Proving that the females were not to be laughed at, Faye set a new track record for A Class at 42.2 seconds.

The Percival Mfg. Co. of Boone, Iowa, sent a team of cars. The Kurtis designed carts were West Bend powered, ran in A and B class. Drivers were brought down from Lancaster, Calif., for meet.



RIGHT • C Class championship ended just as seen here and almost as close. Al McDonald (leading) took top honors with Bill Landefeld a close second. Each ran a Villiers motorcycle engine for a powerplant. Varied adaptations were present.

BELOW • Gilbert Evans drove three smooth races, captured second place in B Class. Here, he leads winner Geer thru tricky banked turn. Gil's Hovey Hawk's powered by Mercury chain-saw engine.



LEFT • Largest out-of-state entry came from Fort Worth, Texas. There were nine cars and fourteen participants representing the Spyder "500" carts manufactured in Fort Worth. The team had the only out-of-state female entries.

Car which received most attention at the meet was a Yamaha powered special built by Gene Wise. Engine is a 15 cu. in. twin from a Japanese motorcycle. This was the first time the car had been run and it performed exceptionally well having more than enough power. A broken axle put it out of running.

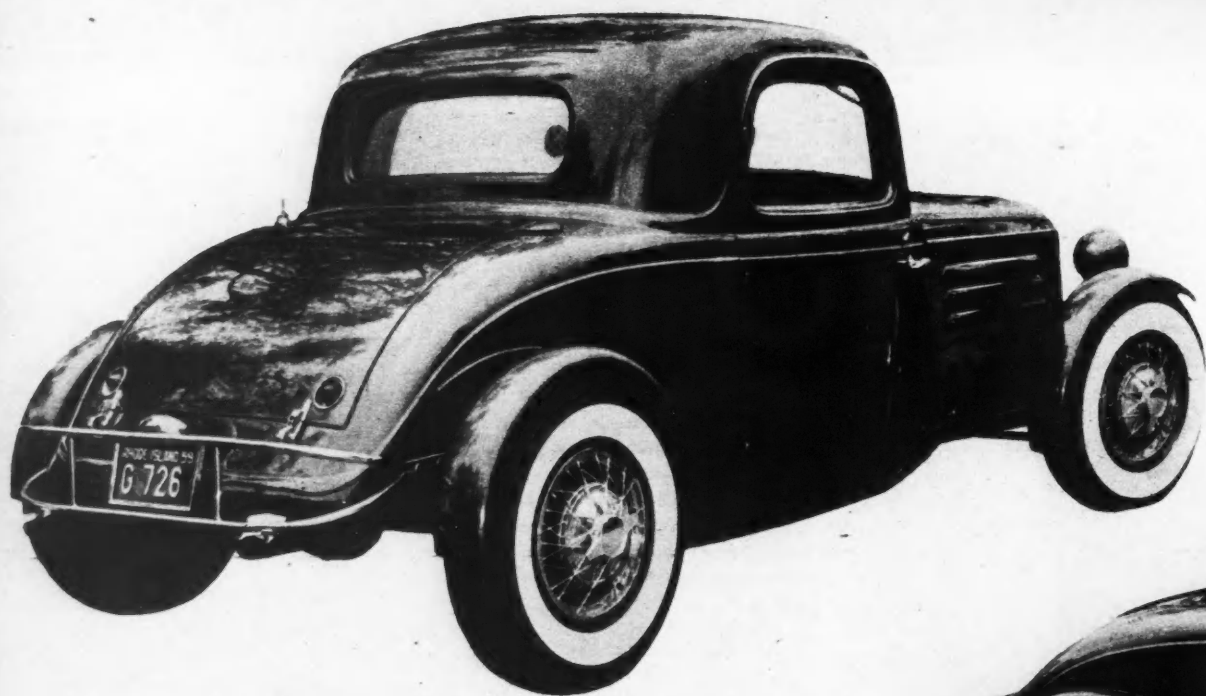


The Go Kart Club provided added excitement at intermissions such as the two wheel antics by Duffy Livingstone seen here. Also the small "bikes" ran an exhibition race. The spectators thoroughly enjoyed the three day event.

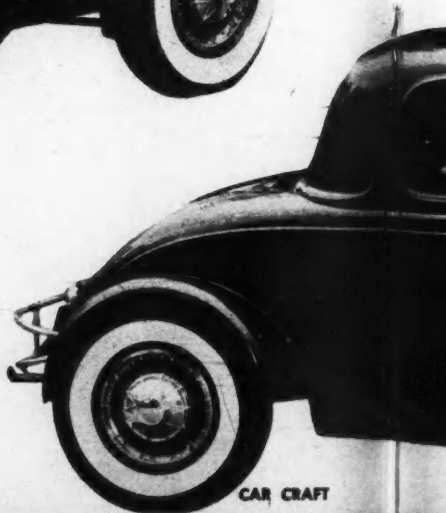


3 WINDOW FAVORITE

George Smaldone's early street coupe can't break from tradition — it's always in the running



Channelled coupe is mounted upon '33 Ford frame with '40 Ford suspension and brakes, '37 Plymouth steering gear. Cycle fenders cover 6:40 front, 7:10 rear tires on Merc wheels. Nerf bar used on rear, taillights housed in small chrome bezels. Deck lid secured by snap-locks. '39 Ford trans uses Lincoln Zephyr gears.





George Smaldone of Cranston, R.I. spent four years constructing his '33 Ford coupe. George, former builder and driver of stock car racing machines built the coupe for pleasure and personal accomplishment. Nerf bar protects '37 Ford truck grille; hood is liberally louvered, side panels from an early GMC product.



Smaldone worked with Frank's Auto Top, Providence, R.I. in stitching sharp black and red leather and Naugahyde upholstery to harmonize with Siren Red lacquered body. Safety padded dash. Padded frame rails indicate deep 7 1/2" channelling job; seats are reworked.



Photos by John Eddy

Flatheads forever! Faithful '48 Merc block is bored to 3-15/16", stroked to 4" displacing a healthy 256 cubes. A Harmon-Collins cam, Jahns pistons, Kogel 9-1 heads, Mallory ignition, and Merc carb provide top performance.





BARRIS KUSTOM RESTYLES THE '58 CHEVROLET

SINCE THE RESTYLE features started, few cars have ever been chosen for a return engagement. This month, however, we are bringing the '58 Chevrolet back for a second time. We first restyled the Chev in February of 1958 with Joe Wilhelm handling the customizing chore. For our second run, we asked George Barris of Barris Kustom Shop, Lynwood, California to give us his professional opinion of the Chevy.

As a rule, we give the customizers a free-hand at the cars which they are asked to restyle. Their only restriction is that they keep their ideas within the range of \$1000. But, since we are running one of the most popular cars on the market, the '58 Impala, we asked Barris

to utilize only the existing body lines of the Chev in his interpretation, since we feel that one of the major reasons for this car's popularity lies with its contours.

BODY MODIFICATIONS

First item on the agenda was to remove all the exterior chrome frills. In the completed stage the Impala does not have one piece of exterior garnishing which does not portray a role in contour enhancement or as an integral part of one of the features. As is usually the case with our restyles, the door handles are removed. However, some customizers do not desire to use an electric solenoid system for door operation, so this item is strictly optional.

George Barris





Because the Chev already takes on a low silhouette in its stock form, it was not lowered. To some, this might be the first step, but with the ground clearance of the late models being almost at a minimum for proper ride and comfort, it is not considered necessary.

FRONTAL CHANGES

If you'll look at the photographs, then the illustrations, you'll see that the front end uses basically stock lines. The bumper is removed, but the over-all appearance of the new lower portion of the grille shell retains the stock dimension. The upper bar is acutally a large round tube frenched-in which carries the line of vision from the rear of the front wheel opening up over the grille to the other side. It is also used to cut the size of the grille cavity, as well as the wheel openings, giving it a flat top rather than the curved effect on the stock Chevy. The entire grille shell and lower pan are frenched into one unit.

For grille replacement, one of the latest fads was exploited by procuring large drawer handles (or pulls)



for use. These are found in any hardware store and provide an easy and inexpensive type of grille. Evenly spaced, they are mounted on hidden brackets within the shell.

Headlights are stock assemblies, but appearance is changed by frenching and tunneling them to the fenders. They possess a deep 'V' cavity between the lamp units of the quad set-up. This cavity extends back to mid-fender.

REAR ASPECT

A uniform design is considered by many as the best, therefore the rear end is modified to resemble the front. This includes the use of a rear end grille which is constructed much in the same manner as that of the front. A thick length of round rod tubing is used to enhance the rear wheel openings, as well as to cut the size down. This tubing is molded to the body and extends from the wheel around the fender to form an upper lip for the rear end grille. It incorporates and covers the semi-wind split found on the Chev's rear quarter panels. The rear pan is rolled and forms the bottom edge of the rear grille cavity. This shell is not as large as the front, therefore, smaller sized drawer handles were installed in the opening. In the center of the shell

and grille assembly is the license plate.

A new taillight idea resulted in a built-up fender fin, which is relatively of minor nature on the stock Chevy. It was decided to install '58 Edsel taillights in a reversed position. Upon the lens surface of the Edsel units are mounted three '59 Cadillac taillights, presenting a rather bizarre effect. To mount this taillight assembly, the rear fenders were built-up, adding a lower edge of curved metal. This new innovation extends from the middle of the door rearward. Since this new fin resembles a distorted S-shape, side trim was constructed to match. The inner section of the trim can be painted a contrasting color, as it is here, or it could be filled with a panel of Mylar tape or strips of Chrome Tape.

DETAILS

George felt that the stock roof scoop left much to be desired, so he changed it by constructing a new scoop, extending it further forward on the roof, and left it ungarnished with trim.

For paint, Barris feels that most any color would do this custom justice, but he does add that a nice Kandy Kolor paint job would really make it 'come on.'

RE-STYLING

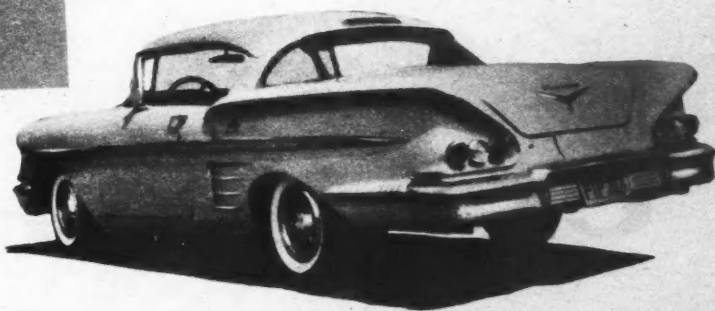
THE '58 CHEVROLET





PRICE LIST

	Labor and Parts Estimate
Hoodlights	80.00
Front grille	50.00
Front bumper	60.00
Front fender trimmer	100.00
Front wheel hub to rim	200.00
Rear grille	50.00
Rear bumper	60.00
Rear fender trimmer	100.00
Rear wheel modified	50.00
Tailights	125.00
Paint	1125.00
TOTAL	\$1000.00

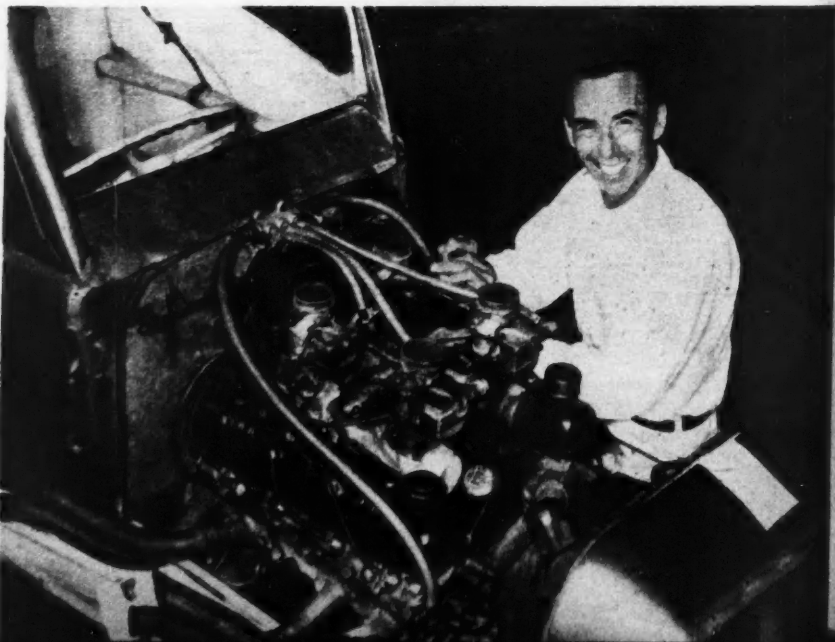


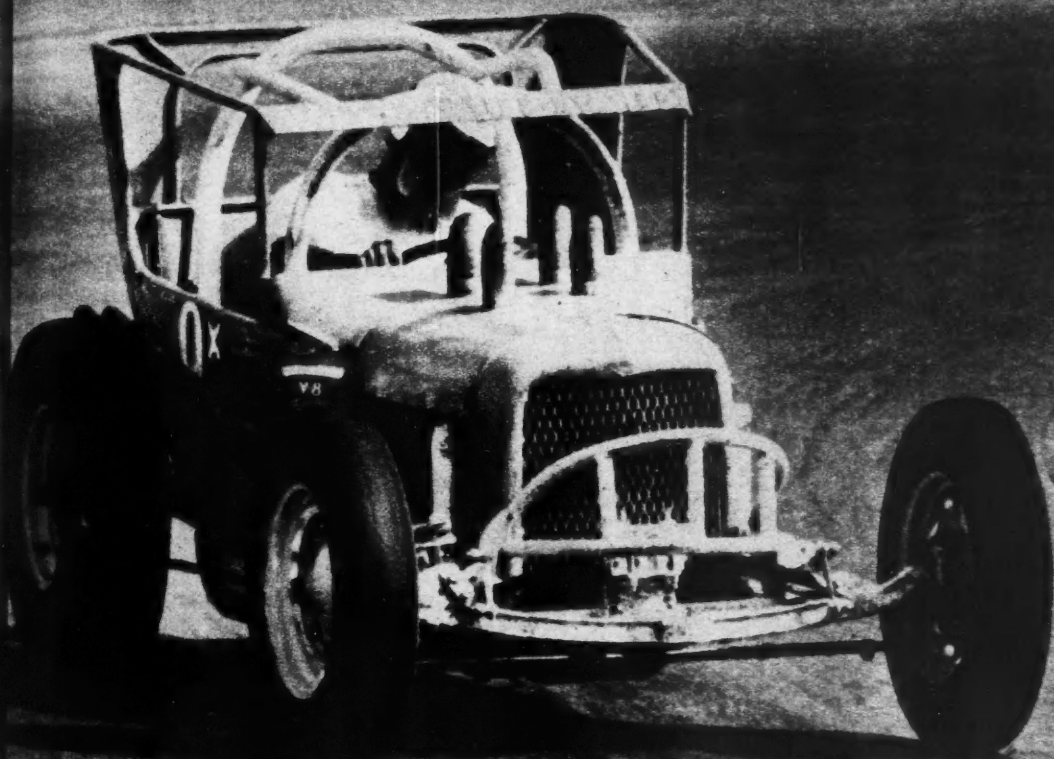


CHAMP OF THE

*Beneath Willys disguise,
Art Pratt combines
300 HP Buick and
Mercedes gearbox
for champion
hybrid track rod*

Art Pratt, Jr., of Escondido, California makes last minute adjustments on the powerful 345 cubic inch '53 Buick mill. Engine features $\frac{1}{8}$ " longer stroke, Isky cam, push rods, lifters, 11-1 compression ratio with Buick heads, JE pistons, Weiand manifold with four Stromberg 97 carburetors, and Mallory ignition.

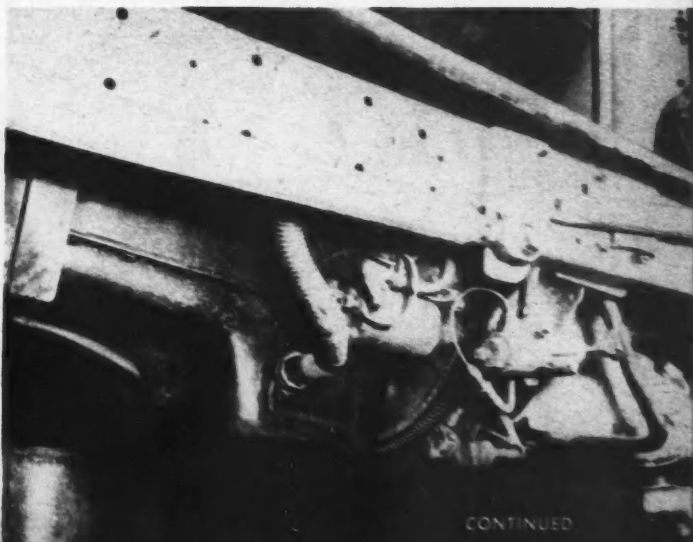
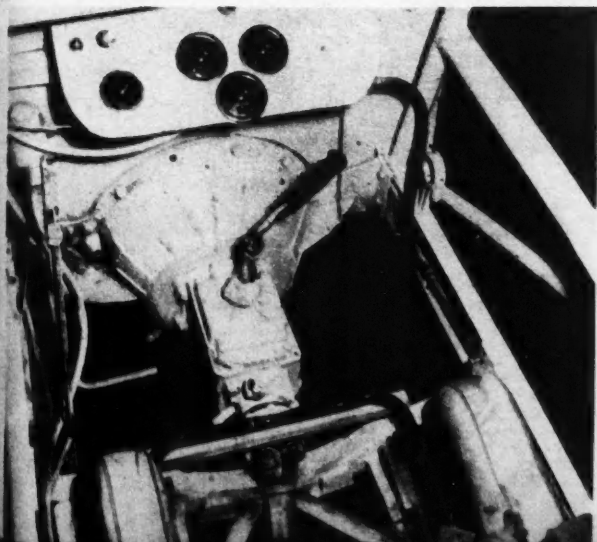




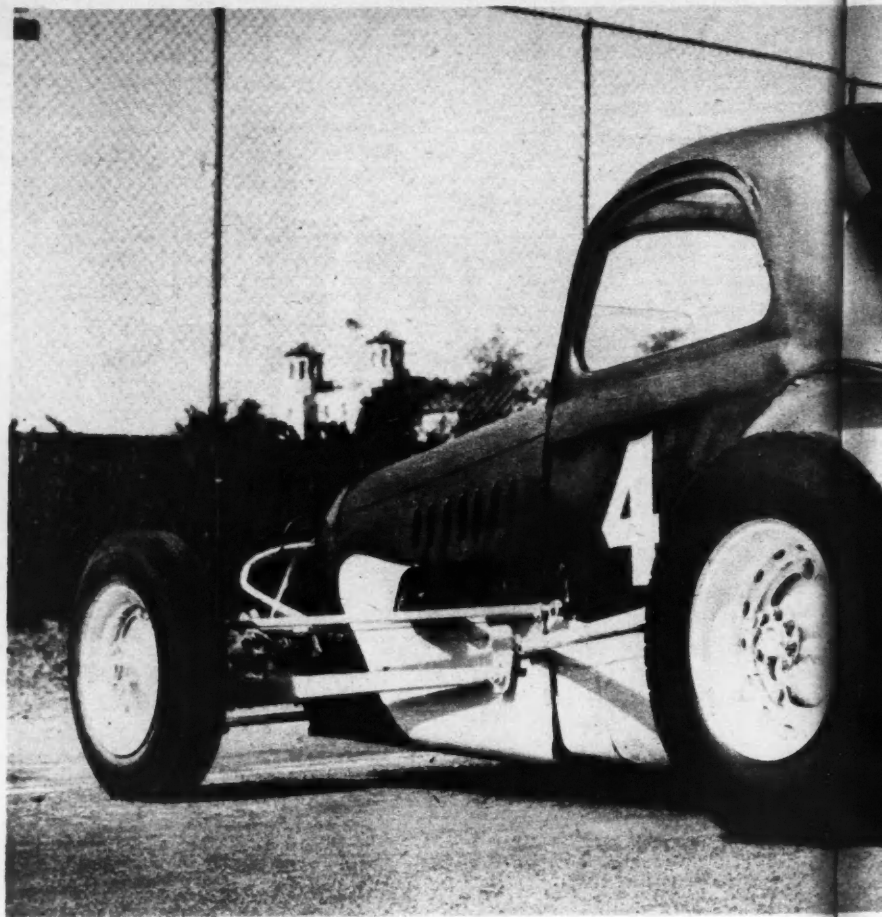
"SPORTSMEN"

Many ingenious technical features are found on Pratt's hot Sportsman class rod. Witness coupling of '57 Mercedes-Benz 300 SL 4-speed trans to Buick mill via homemade adaptor.

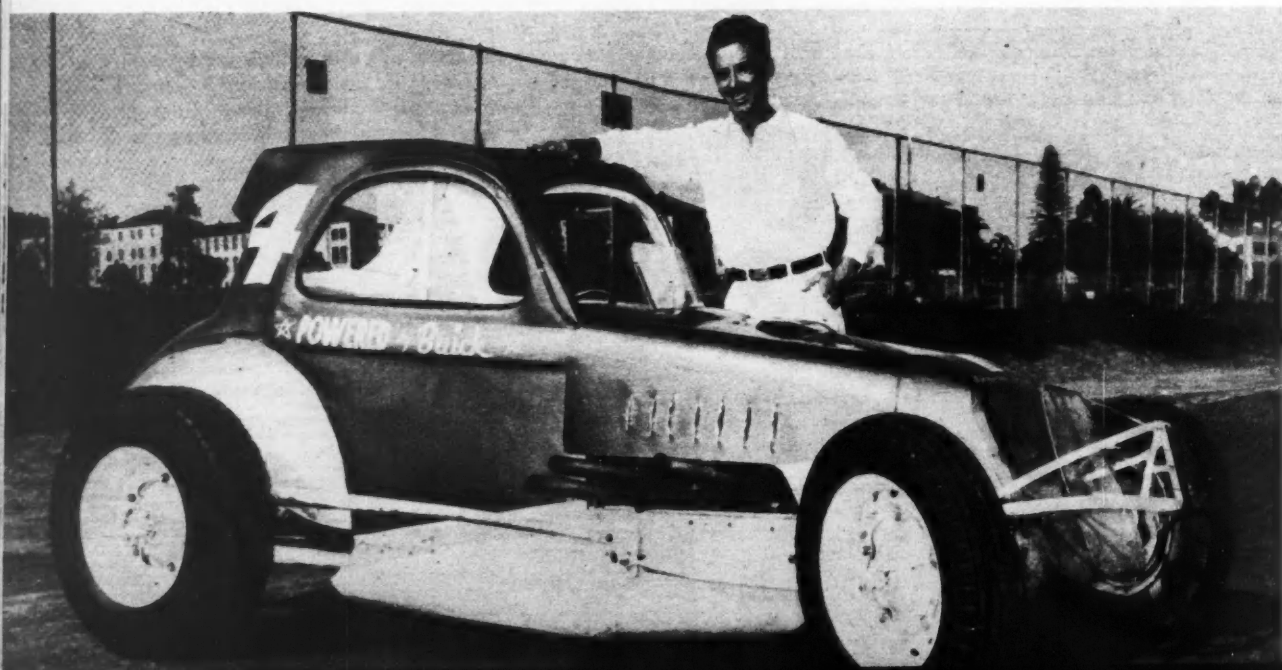
Another Mercedes component was drafted into use by Pratt, this time on the engine. An SL oil pump was used to convert Buick to dry sump with oil drawn from tank in rear of the car.

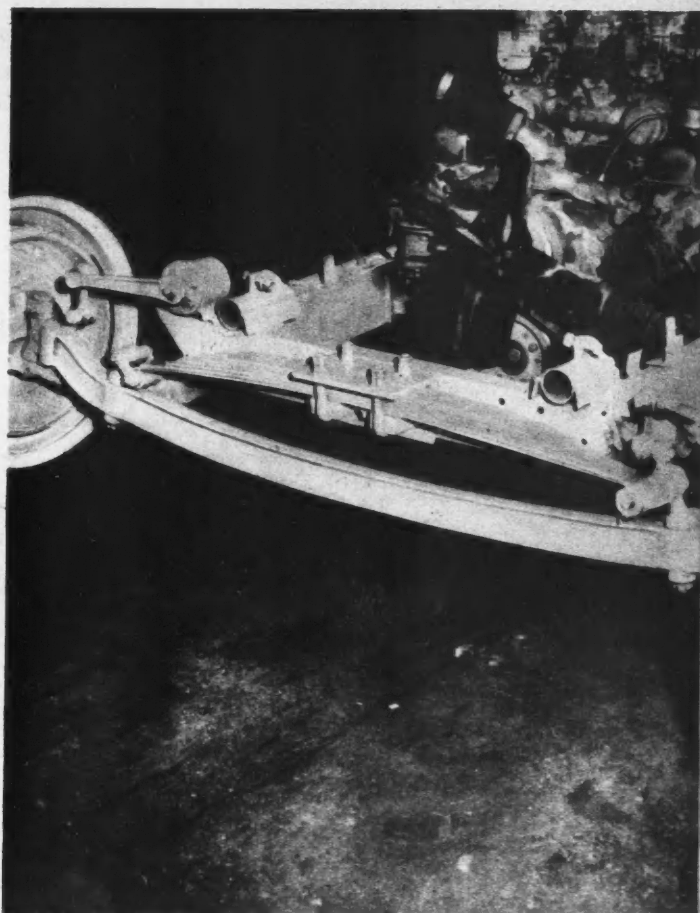
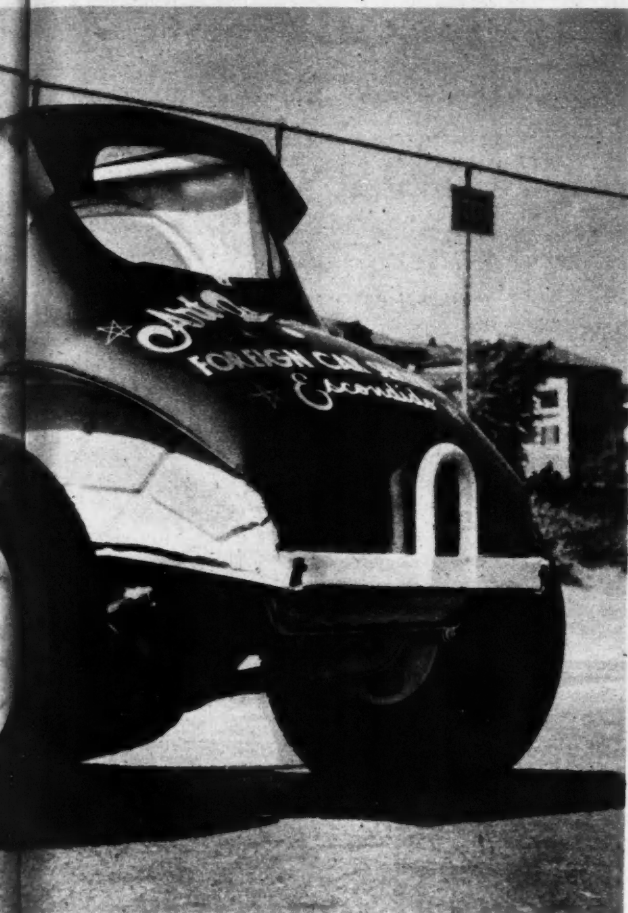


CONTINUED



CHAMP OF THE "SPORTSMEN"



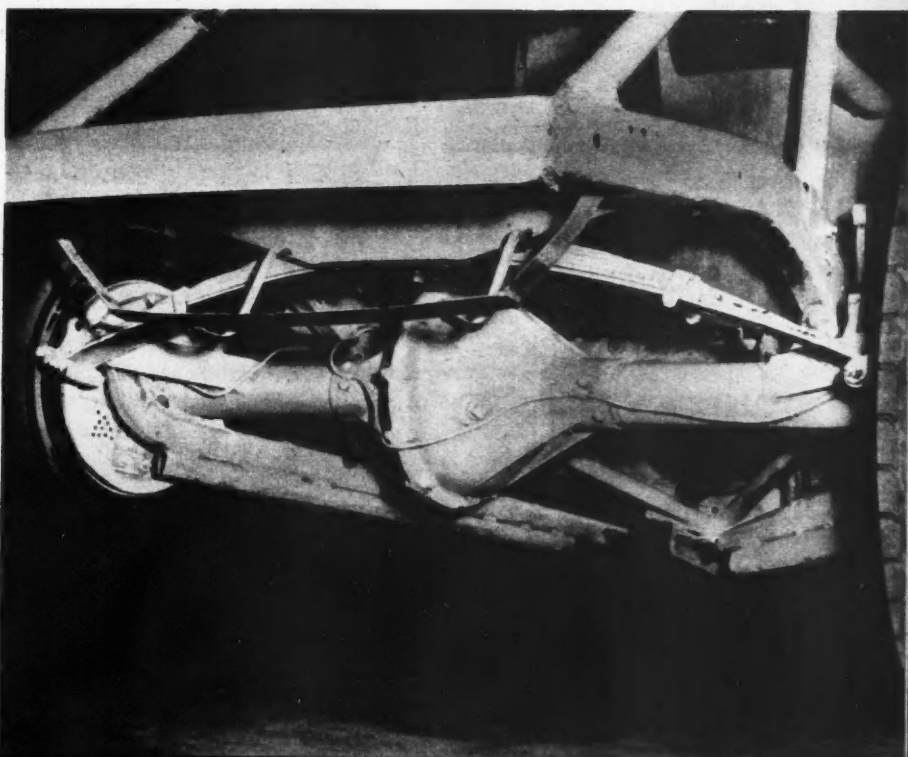


Doors are welded shut for safety purposes, therefore entry is accomplished by entering open top or rear window. Inside are sturdy 'squirrel cage' bars.

Truly a hybrid hot rod, #4, as it is known by the Sportsman racing crowd, uses a much-modified '39 Willys coupe body with special nose, hood panels.

Front end of the '26 Chevrolet chassis with 96" wheelbase has '32 Ford transverse spring, axle, '37 Ford spindles, Houdaille shocks, Franklin steering.

RIGHT • Rear counterpart with transverse spring uses '39 Ford ¾ ton truck rear end, 4.87 ratio, Houdaille shocks, '39 Ford brakes. Note the radius rods.

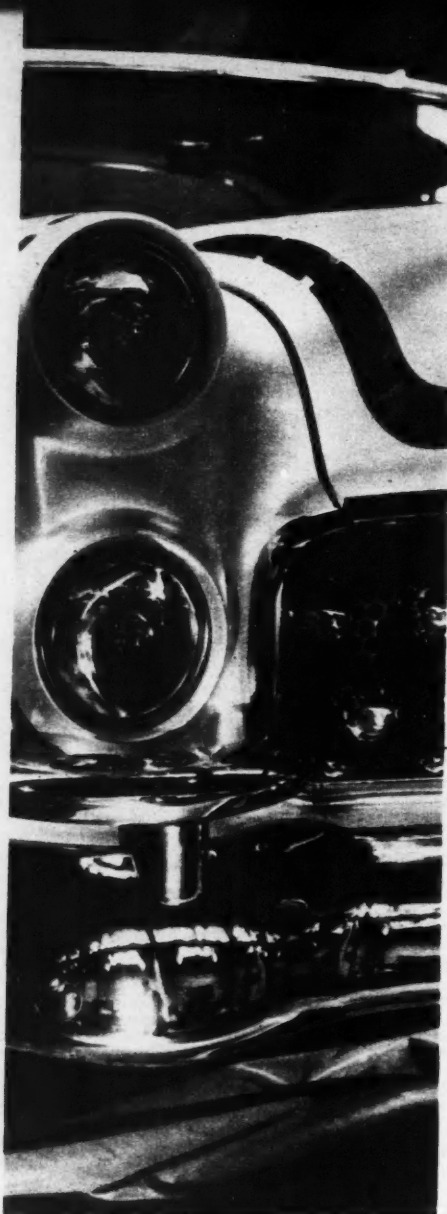


Photos by Bob Hardee



here's
how:

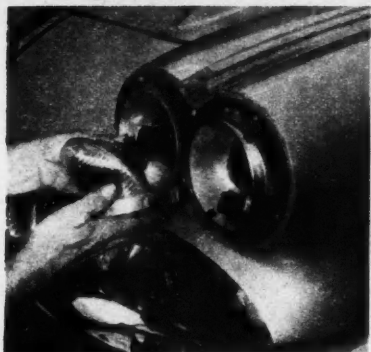
**POPULAR QUADS TAKE
ON FOREIGN FLAVOR
AS CUSTOMIZERS
DISCOVER ENGLISH
LUCAS HEADLIGHTS**



Photos by George Barris

WITH THE INFLUX of foreign cars on the American market it was certain that custom car enthusiasts soon would be borrowing bits of the foreign styling for use on their domestic creations. One of the ideas recently sweeping the show circles is the substitution of English Lucas headlights for their American counterpart. The beauty of the installation is that it requires no cutting up of the fenders or headlights, as the Lucas lamps are available in the same sizes as our headlights — both the large single units or the newer quad variety. Of course, if they are used in a restyled headlight setting the effect is twice as good. The lights may be had in either clear or frosted lenses, both having the center chrome bullet. However, state laws should be checked before the clear lenses are used for driving lights.

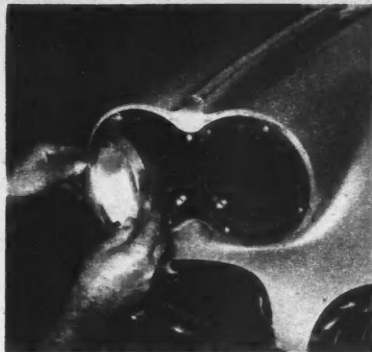
Approximate prices for the necessary components to perform this swap are: beam units \$5.00 each, light bulbs \$1.25 each, attaching sockets \$2.40 each. They are available or may be ordered thru most of the leading import auto dealers. The above photos show a few customized installations that have adapted the lights, while the step-by-step photos will explain the procedures for performing the switch on a stock car.



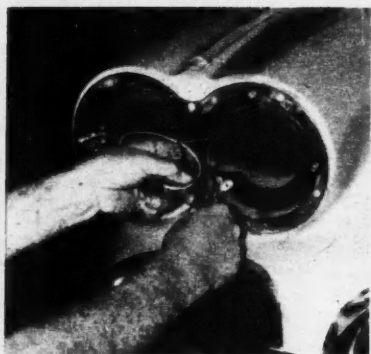
1. First step is to remove the stock headlight ring from the fender housing.



2. Next, disconnect the wires and remove the sealbeams from the buckets.



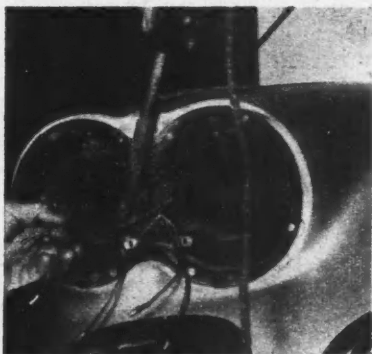
3. After removing the sealbeams, pull wires thru and remove light buckets.



4. Clip off the ends of the stock wires that connected to the original lights.



5. Splice a piece of wire to each stock wire and attach new clips on the ends.



6. Solder together all splices and attachment clips. Keep neat as possible.



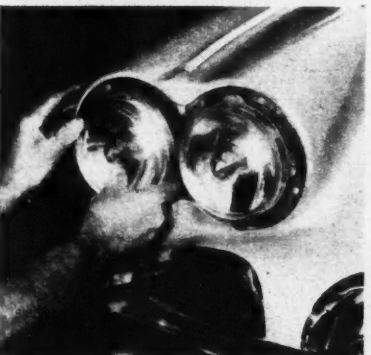
7. Insert the new light bulbs into the Lucas headlights. Hold in this position.



8. With the new bulb in place, twist lock the new socket in place on lamp.



9. Insert wire clips into their designated spots and attach ground wire.



10. Fit the Lucas lights into the stock buckets, then secure them to fender.

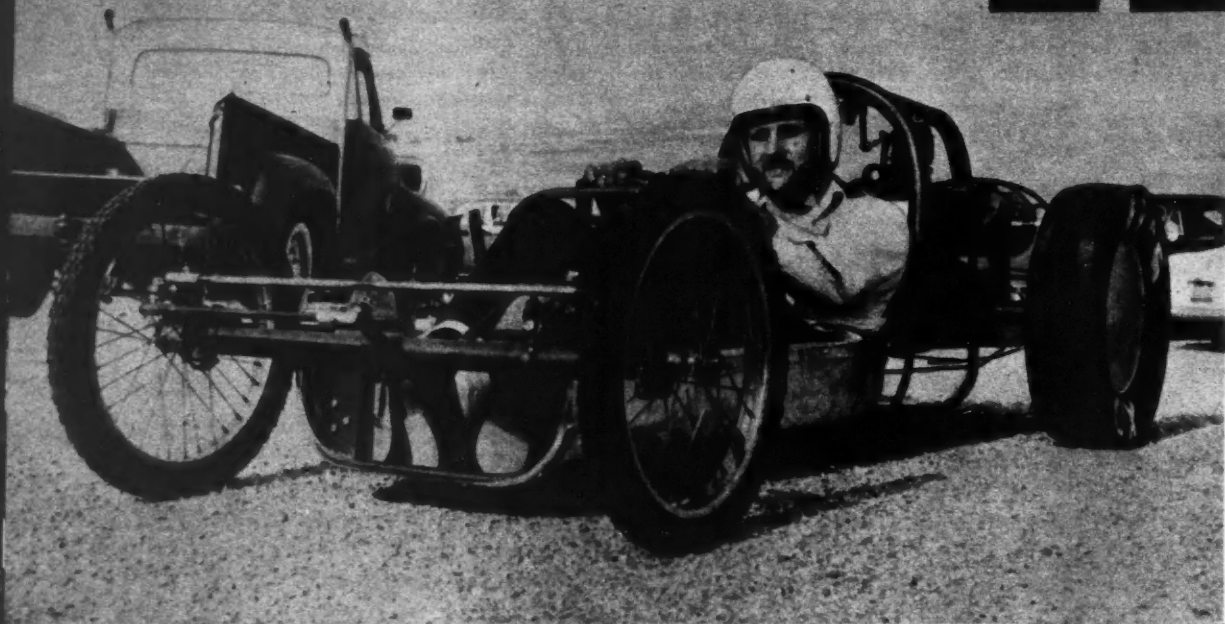


11. Finish up the job by replacing the original headlight ring to the fender.



12. Although headlights are in stock surroundings, custom appeal is gained.

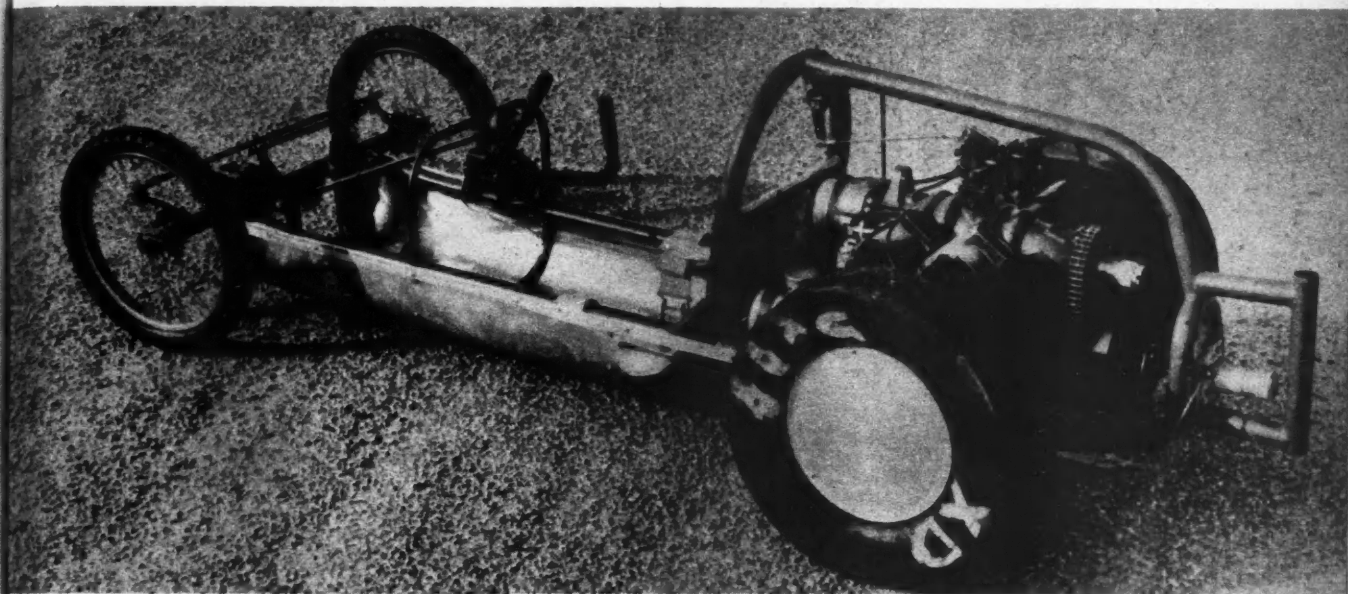
DRAGSTER X



Randy Rannberg of Fontana, California is owner, builder, driver of miniature dragster shown getting off the line in the photo below. Best time to date is 87 mph with straight through gearing. Future calls for a 4-speed Ariel trans.



Sometimes called "King Of The Carts" — experimental lightweight runs out at 90 mph in quarter mile



Not much bigger than a good sized cart, Rannberg's drag machine has a 72" wheelbase, 40" tread fore/aft. Frame is of thick-wall tubing, semi-belly pan is of aluminum sheet.

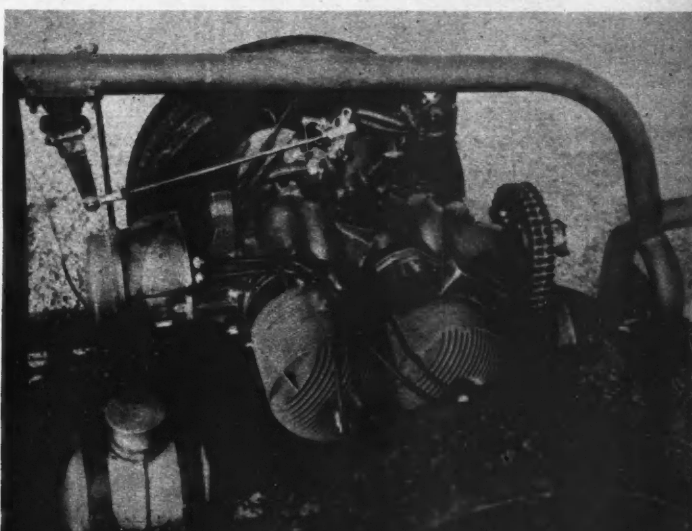
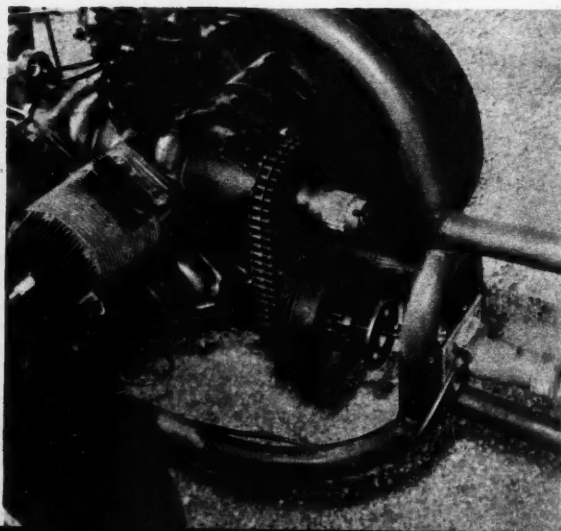
Entire steering assembly is of the simplest design possible: direct. Bicycle handgrips used on steering T-bar, lever on driver's right. Schwinn front wheels have Firestone tires.

Unique engine for dragster is four-cylinder Drone aircraft engine displacing 95 cubic inches. Bore, stroke are same: 3 1/8"; single Winfield carb, Harley-Davidson clutch used.

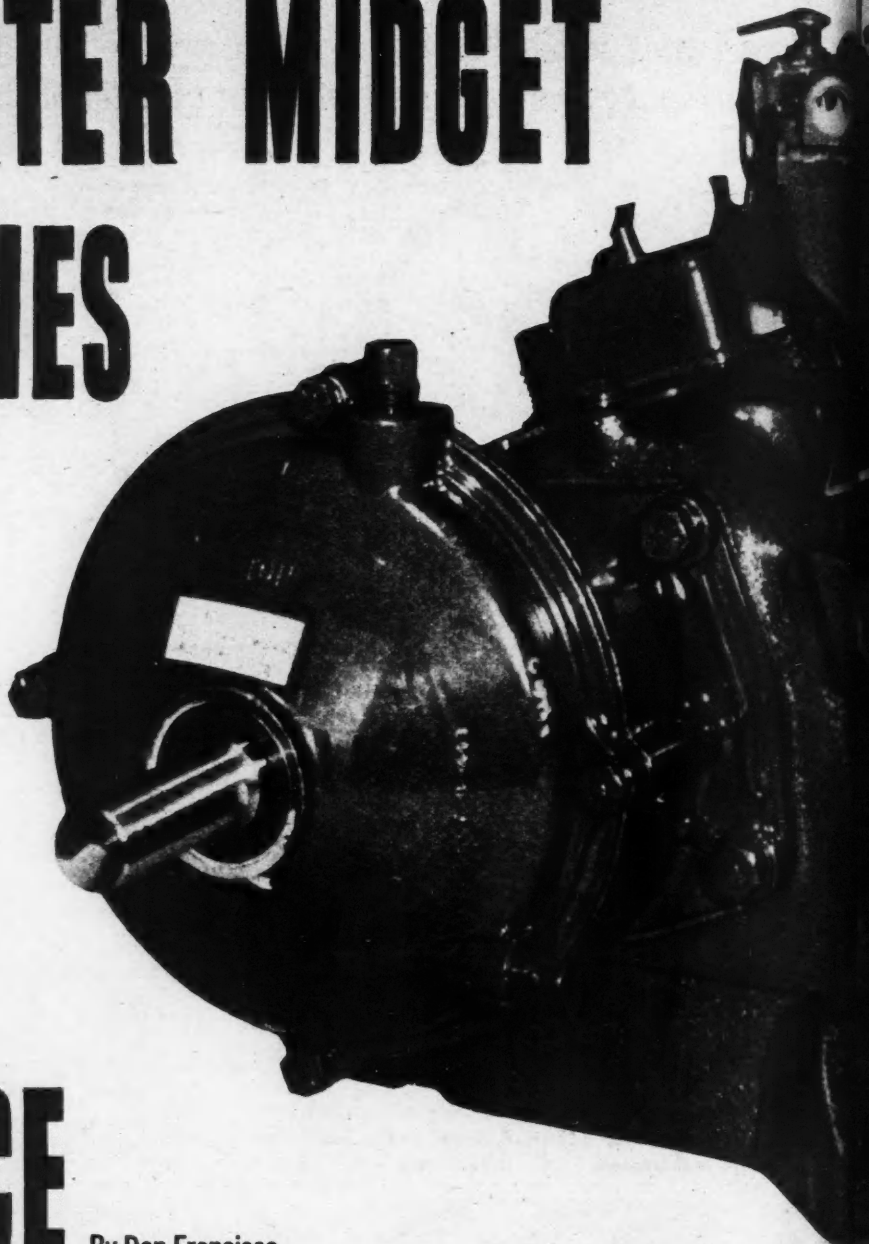
To convert the engine's power to the road, a chain drive system is used. 5.25-1 is ring/pinion ratio. Austin Bantam axle is shortened; Crosley wheels run 5:00 x 12 tires.



Photos by Bud Lang



QUARTER MIDGET ENGINES



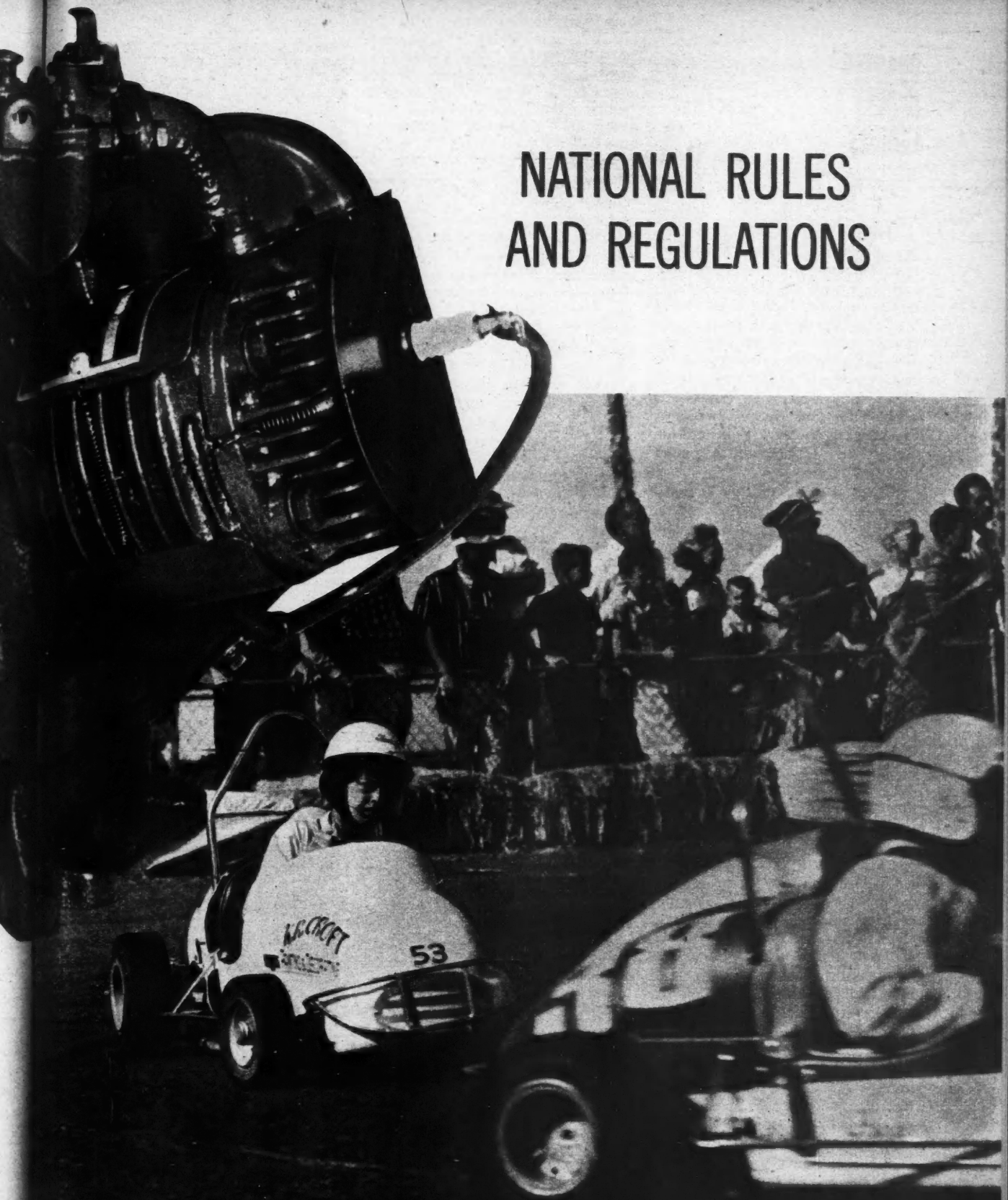
Part I NOVICE

By Don Francisco

WHEN CAR CRAFT MAGAZINE published a quarter midget engine article in June and July of 1957, quarter midget racing was just getting a solid grip in some parts of the country as a family participation sport. Now, two years later, active quarter midget associations can be found in practically every part of the nation. Because of this nationwide popularity, one of the sport's growing pains has been the lack of standardization of its engine rules and specifications.

Most of the associations have made their own rules to fit their particular needs. This is the natural thing to do and there isn't anything wrong with the practice as long as the members of the different associations compete only on their own tracks. The flaw in the "home-base" practice becomes apparent when members of one association try to run on a track that is operated by another association or at one of the annual Championship meets.

NATIONAL RULES AND REGULATIONS



CONTINUED

QUARTER MIDGET ENGINES

This problem is steadily becoming more pronounced. Its only solution is the adoption of a set of rules and specifications by the nation's quarter midget racing associations. Such a set of rules and specifications is now in use by a number of the associations in the southwest states. They are the new "National Rules." These compatible rules have been adopted for such National meets as Phoenix, Las Vegas, Fresno, and the recent Tulsa, Oklahoma, Championship event.

Universal adoption of the National Rules by racing associations would take all the problems of inter-association competition out of the sport. Car owners could compete at any track that employed the National Rules without having to make mechanical changes to the engines in their cars. It would be possible for a resident of any state in the country to travel to any other state and race on an equal basis.

Purposes of this article are twofold. One is to introduce the National Rules to all associations that might not be familiar with them in the hope that these associations will adopt them and write them into their racing specifications. Our second endeavor is to show the latest methods of reworking a Continental AU7R engine for maximum performance, within the limitations set forth for each of the four National Rules classes. The modifications will be made by Kong Jackson, of Jackson Engineering, Research, and Design in Glendale, Calif. Many of the engines Kong has built have been highly successful in West Coast Q-M racing. Although any engine that meets the displacement and basic horsepower specifications set forth in the rules can be used in competition governed by the National Rules, the Connie AU7R is almost standard equipment in quarter midget racing.

In their present form, the National Rules are as follows:

Basic engines for Class 1 and 2

must not have a cylinder displacement greater than 7.3 cubic inches nor have a factory power rating greater than 2.5 horsepower.

Engines for all classes must be of the L-head type (flathead, side-valve).

Supercharging of any type is not allowed in any class.

Spraying of fuel into the engine at pressure above atmospheric is not allowed in any class.

The word "Stock" means that the component so designated must be a part that was made originally for the make and model engine being used. Parts designated as stock cannot be altered in any way. As an example, a stock camshaft for a Continental AU7R engine must have the manufacturer's part number of I-216 and it must not have been reground.

Minimum flywheel weight for engines in all classes is specified as 95 percent of stock weight. For the Connie AU7R, the minimum weight is 1 pound, 11 ounces.

Gasoline and fuel for all classes is to be supplied by the meet officials.

"STOCK"

Engines for "Stock," or "Class 1," which are stock gas engines for the Junior division (drivers of ages 4 through 8) and Senior division (drivers of ages 9 through 15) must comply with the following specifications:

A displacement maximum of 7.3 cubic inches.

Stock cylinder head.

Stock cylinder block surface under head (machining up to .010-inch allowed to flatten the surface).

Stock dimension valves.

Any type of valve spring keepers.

Stock intake port.

Stock exhaust port (port may be enlarged to a diameter of .875-inch to remove threads).

Stock camshaft.

Flywheel weight minimum:

95 percent of stock.

Engine may drive only one of the car's wheels.

"MODIFIED"

Engines for "Modified," or "Class 2," which are gas engines for the Junior and Senior divisions, must comply with the following specifications:

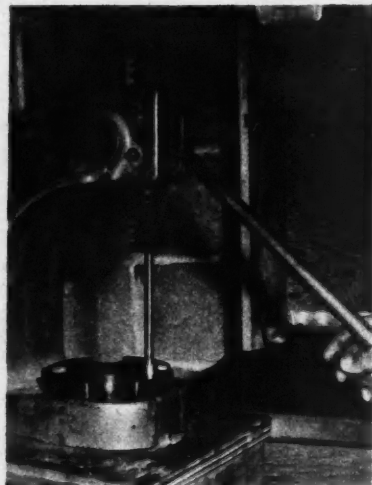
A displacement maximum of 7.5 cubic inches.



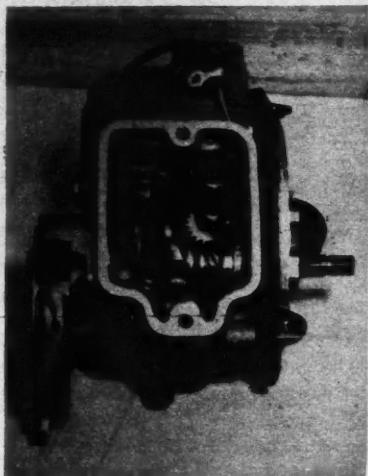
Continental AU7R, donated by manufacturer, being prepared for reworking.



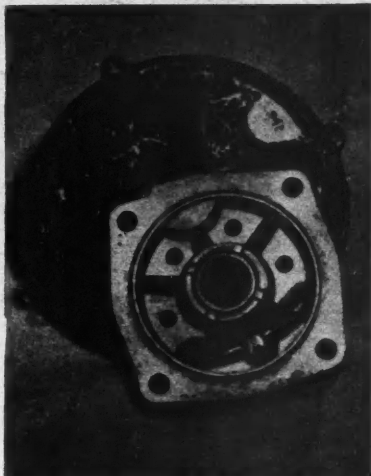
Positioning the piston in the cylinder prior to advancing the ignition timing.



Pressing the breaker cam shaft back into the cam in new advanced position.



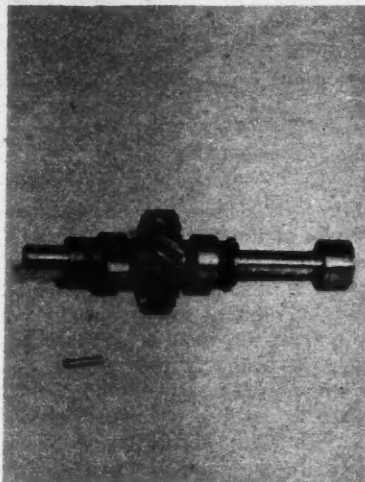
Special heavy-duty oil dipper in place on engine's standard connecting rod.



Four 1/4-inch hole in inner gear housing provide additional engine ventilation.



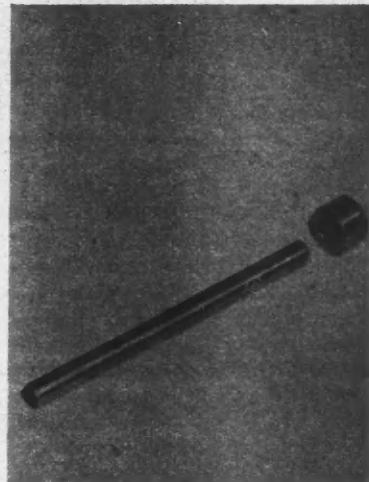
Drilling holes in exhaust port flange with the aid of a special drilling jig.



Simple construction uses ignition system shaft as bearing journals for camshaft.



Forcing the ignition system's breaker cam shaft out of the cam with a press.



Ignition system shaft and breaker cam, after cam has been removed from shaft.



Loosening the capscrew that secures the ignition breaker plate to cylinder block.



Rotating the breaker plate to make the points open, as indicated by voltmeter.



A gear puller is usually required for separating the flywheel from the crank.

QUARTER MIDGET ENGINES

Stock camshaft.

Flywheel weight minimum:

95 percent of stock.

The engine may drive only one of the car's wheels.

"GAS"

Engines for "Gas," or "Class 3," which are open-gas engines for drivers of ages 4 through 15, must comply with the following specifications:

A maximum displacement of 8.3 cubic inches.

"FUEL"

Engines for "Fuel," or "Class 4," which are open-fuel engines for drivers of ages 4 through 15, must comply with the following specifications:

A maximum displacement of 8.3 cubic inches.

The National Rules do not include a "Basic," or "Novice," class. This is a class that many associations employ for new members, their cars and beginning drivers. The modifications allowed to the stock engine in this so-called "Basic" or "Novice" classification are only those that add to the longevity of the engine and allow it to perform more smoothly.

The reason this class was omitted from the National Rules is that events for strictly novice drivers are seldom included in National events. However, to make this engine series as complete as possible and of the most value to associations that might choose to adopt the National Rules and also have a class for new drivers, rules for a Basic engine will be included. These additional rules, in combination with the National Rules, will provide a complete set of engine specifications that will cover all phases of quarter midget racing.

As it would be impractical to specify Basic rules for all makes of engines that could be used in quarter midgets, the following specifications apply only to the Continental AU7R.

"NOVICE"

The engine must be completely stock, as received from the factory;

however, the following modifications are allowed.

Installation of a heavy-duty oil dipper on the connecting rod.

Drilling of four quarter-inch vent holes in the inner reduction gear housing.

Drilling and tapping two holes in the exhaust pipe flange on the cylinder block to permit the installation of a flanged pipe.

Advancing the ignition timing.

Installation of a standard automotive-type flexible fuel line, and a shut-off valve and carburetor fitting to match, between the engine's fuel tank and carburetor.

Installation of flexible hoses between the gear box filler opening and the valve chamber cover and a special vent of some sort. Several vent devices are made for this purpose by quarter midget parts manufacturers.

Removal of the carburetor air cleaner, the muffler, and the complete governor assembly.

It is recommended that all bolts and nuts in the engine assembly be either fitted with lock washers or safety wired to prevent their being loosened by vibration and lost.

To make the permissible modifications to a Basic engine it is necessary to remove the engine's flywheel shroud, complete governor assembly, air cleaner, muffler, rubber fuel line and fittings, starter pulley and wire mesh flywheel guard, flywheel, inner and outer reduction gear housings, ignition cover, oil sump, connecting rod dipper, and cylinder head.

Installation of the new rod dipper is merely a matter of bolting it to the rod in the same position as the original dipper. The special dipper will withstand higher engine speeds than the stock dipper because it is made of stronger material.

The four quarter-inch vent holes in the inner reduction gear housing are drilled so that they are equally spaced between the stiffening fins on the crankcase side of the cover. They should be approximately 1-inch from the edge of the bore for the crankshaft. These holes will allow pressures created in the gear housing and crankcase when the engine is running to flow from the gear case to the crankcase, or vice versa, and then to the atmosphere through the vent hoses attached to the engine. Relieving the pressure in this manner will prevent its forcing oil out of the

engine past the various seals in the crankcase and gear case. The holes also allow oil in the engine's sump to flow freely into the gear case where it can lubricate the reduction gears. When filling the crankcase, pour one pint of oil into the regular crankcase filler opening and then tilt the engine so that part of the oil can run into the gear case. When the engine is returned to its normal position, the oil in the crankcase and gear case will automatically seek its operating level.

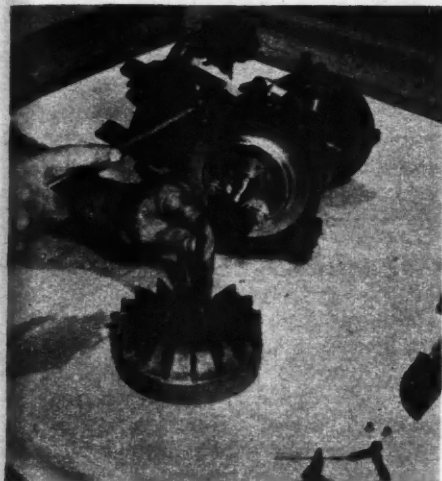
The holes drilled in the exhaust port flange should be spaced so that the distance between their centers is 1½-inch. This spacing can be determined accurately by using an intake manifold or its gasket as a guide. The holes should be equally spaced on either side of the exhaust port. Use a number seven drill and drill to a depth of approximately ¾-inch. Thread the holes with a ¼-inch, 20 thread tap. *It is not permissible to remove the threads from the exhaust passage of a Basic engine.*

Advancing the ignition timing requires a little more knowledge than the rest of the Basic engine modifications but it is just as easy to do once the principle is understood. Start by rotating the crankshaft in its normal direction of rotation to move the piston up the cylinder on its compression stroke to a point where its head is between ⅜-inch and ½-inch from the top of the cylinder block. Be sure the piston is on its compression stroke. Also, it is important that the crankshaft be rotated in its normal direction when the piston is being positioned because this places the gears between the crankshaft and the ignition shaft in the same relationship they occupy when the engine is running.

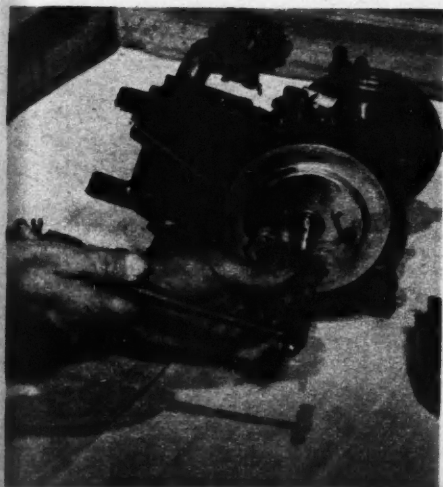
With the piston in its specified position the ignition system's breaker points should be open just enough to stop the flow of current in the magnet's primary circuit. When the points are in this position the rubbing block on the movable point arm must be in contact with the leading edge of the breaker cam lobe. To guarantee this, rotate the breaker plate on which the points are mounted the same direction the breaker cam rotates until the rubbing block is ahead of the cam and then rotate it in the opposite direction until the points just open, or "break."



Marking inner edge of flywheel to simplify installation in its new position.



Marking the outer edge of the flywheel prior to advancing it on the crankshaft.



Reference mark must be made on end of crankshaft in line with the keyway.

CONTINUED



1959 FORD



1958 FORD & Thunderbird



1957 FORD



55-56 FORD



1952 FORD

STAINLESS STEEL TUBULAR TYPE CUSTOM GRILLES

For 52-59 FORD
55-59 CHEVROLET
1958 THUNDERBIRD Reg. \$29.95
NOW \$19.95 Each

Give the front end of your Ford, Chevrolet, or Thunderbird an entirely new, more beautiful look. Add sparkling, streamlined beauty. Grilles are custom tailored and contoured to harmonize with chrome trim, blend in perfectly with body lines. Tubes curve sharply back at each end to blend into grille openings. Grilles are complete with necessary mounting brackets, bolts and are already assembled. Easy to install—no alterations, cutting or welding necessary. Perfect fit guaranteed. **GUARANTEED RUSTPROOF.** Deluxe quality—heavier 3/4" diameter, 18 gauge heavy stainless steel tubing. Tubes used in these grilles are not solid but 2/3 of a full tube—open in back. Brackets have welded studs that match original grille mounting holes. No alterations required. New parking light housing supplied when necessary for installing lights behind grille (except 55-56 Chevrolet & Ford).

J.C. WHITNEY & CO. USE THIS HANDY ORDER FORM

1917 C-210 Archer Ave., Chicago 16, Ill.

Enclose Check or Money Order for \$19.95 plus \$1.30 for shipping charges to cover payment in full (or 25% if C.O.D.). Please do not send currency or stamps. If C.O.D. order, enclose at least 25% deposit, pay balance plus shipping charges upon delivery.

Name _____

Address _____

City _____ Zone _____ State _____

My car is a _____ Year _____

NOTE: Be sure to give Make and Model of car when ordering.



1959 CHEVROLET



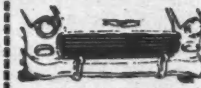
1958 CHEVROLET



1957 CHEVROLET



1956 CHEVROLET



1955 CHEVROLET

ENGINEERED EXHAUST HEADER KITS

"Let Your Engine Breathe"

Build professional-looking exhaust headers easily, using our Engineered Kits. Available for all O.H.V. V-8's including '59 models, Ford V-8-60, 85, A, Arden and Myer Drake; Ford, Chev and G.M.C., O.H.V. 6 cyl. Also most sportscars.

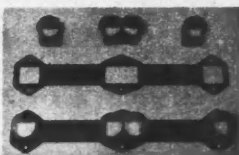
Order Direct or From Our National Distributors and Dealers
Bell Auto Parts • California Speed and Sport • Edelbrock Equipment Co. • Honest Charley Speed Shop • Moon Equipment Co. • Offenhauser Equipment Co. • Michigan and Canada—Kustom Equipment, 5536 Richfield, Flint, Michigan • Texas—AARCO, 1710 N. Arund St., Dallas 1, Texas.

Don't be misled, insist on the **FINEST**—insist on engineered header kits with the formed tubes.

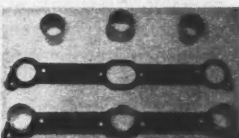
C.O.D.s O.K. Write for new free illustrated brochure.
F.O.B. San Diego

SAN DIEGO STEEL PRODUCTS

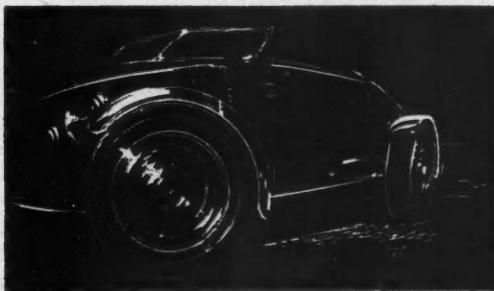
4955 Weeks, San Diego 10, Calif.—Phone Browning 6-5420—CC-10
World's Largest Manufacturers of Engineered Competition Exhaust Kits



Basic Kit '57-58 Olds



Basic Kit '55-58 Pontiac



easily mounted to roadsters and coupes for street or competition, available in several styles and many radiuses to fit all tire widths and diameters, our complete selection features prices starting at \$9.95 a pair

cycle fenders



SEND LARGE SELF-ADDRESSED STAMPED ENVELOPE FOR COMPLETE INFORMATION TO:

SERVICE CENTER

15729 S. Atlantic • CO-10 • Compton, Calif.

The position of the breaker plate at which the points open can be best determined electrically by connecting either a battery and a six-volt light bulb fitted with suitable leads, an ohmmeter, or some other electrical circuit continuity testing instrument in series with the points. The bulb will be lit, or the tetsing instrument wil show current flow, when the points are closed, and the light will go out, or the instrument will show that electrical flow has ceased, the instant the points are open.

To connect a light bulb or a continuity testing instrument to the points for this purpose, connect one of the device's leads to the terminal post on the movable point arm spring support and the other to ground. The lead from the magneto coil that is usually connected to the movable point arm must be disconnected while the device is in the circuit because the coil provides a path to ground regardless of whether the points are open or closed.

Another method of determining point opening time which isn't as precise as the electrical methods described but close enough for an engine of this type is with a piece of cellophane. Place the cellophane between the closed points so that the points grip it securely. Then exert a light pressure on it in an effort to pull it from between the points while the point plate is being slowly rotated to move the points toward the breaker cam. The instant the movable point arm is lifted enough by the breaker cam to allow a moderate pressure to pull the cellophane from between the points, the points can be considered open.

It is seldom possible to rotate the breaker plate enough to advance the timing the desired amount unless the slot for the capscrew that anchors the plate is elongated or the breaker cam is rotated on its shaft. Either of these things, to be done correctly, requires removal of the breaker cam's shaft from the engine. This is done by separating the cylinder block from

its sump, removing the pin that locks the shaft to the camshaft, and then pulling the shaft out of the cylinder block. While pulling the shaft out of the block push another shaft of the same diameter ($\frac{1}{8}$ -inch) or slightly smaller through the block and the camshaft from the bottom. This shaft will hold the camshaft in its normal relationship with the crankshaft until the distributor shaft is reinstalled.

Elongating the slot in the breaker plate is a simple matter after the plate has been removed from the engine but rotating the breaker cam on its shaft is a more workmanlike method of making the correction. If the cam is to be repositioned, determine the amount it must be rotated before removing the shaft from the engine. To do this, place the piston in its specified position and adjust the breaker plate so that its anchor capscrew is in the middle of its adjustment slot. The amount and direction the cam will have to be rotated to place its leading edge in contact with the rubbing block on the point arm can then be determined visually and the cam and shaft marked accordingly. A press of some sort should be used to force the shaft out of the cam and the cam back onto the shaft in its new position. Reassemble the parts in their correct relationship and adjust the breaker plate.

So that the secondary voltage created by the engine's magneto will be at its peak value when the breaker points open in their advanced position, the engine's flywheel must be advanced on the crankshaft. The flywheel is involved in the ignition system because it contains the magnets that create the primary voltage for the system's magneto. Advancing the flywheel is simply a matter of rotating it on the crankshaft; however, before this can be done it is necessary to remove the key that locates the wheel in its stock position from the shaft. It won't be possible to use the key after the flywheel has been repositioned because the keyways in the wheel and shaft will no longer be in line.

The amount to advance the flywheel is equal to $1\frac{1}{2}$ times the distance between two of the wheel's fins. Locate and mark a point on the outer edge of the flywheel that is in line with both the center of the wheel's keyway and the bore for the crankshaft. Measure back (counterclock-

wise when facing the outside of the wheel) from this point a distance equal to $1\frac{1}{2}$ times the distance between two of the wheel's fins. Make a mark at this point. Slip the flywheel onto the crankshaft so that this mark is in line with a line that would pass through the center of the keyway in the crankshaft and the center of the shaft. Install a flat washer of the correct size and then the stock lock washer and nut that secure the wheel to the shaft and tighten the nut to 70 foot-pounds with a good torque wrench. The crankshaft can be locked while the nut is being tightened by inserting a clean piece of wood or some other soft material between it and the inside of the crankcase.

A set of genuine Ford breaker points, Ford part number FAA 12171, will replace the stock Connie points without alteration and is recommended in the interest of better engine operation and longer point life. Lubricate the breaker cam with a thin coat of special breaker cam lubricant. Adjust the points to open a maximum of .012-inch. Points that open more than this may bounce and those that open less may prevent the magneto from creating its maximum secondary voltage. New points must be installed and adjusted before the ignition timing is adjusted.

A drive ratio of 2 to 1 is usually the best for an engine of this type. This can be provided by a 12-tooth engine gear and a 24-tooth gear on the drive wheel, or any other 2 to 1 gear combination.

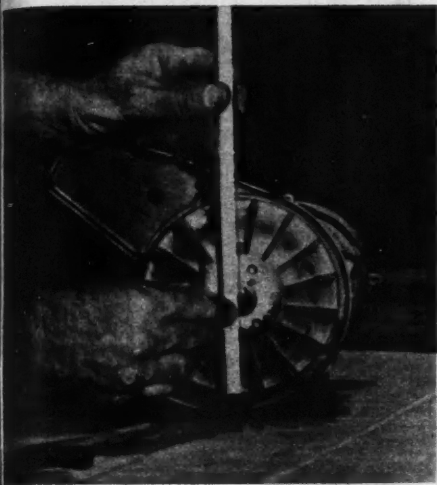
NEXT MONTH

PART II: "STOCK" ENGINE

*National Rules and
Specifications*

*Complete Engine
Modifications*

*Speed Equipment
Buyers Guide*



Aligning flywheel on the shaft with aid of the reference marks made previously.



The flywheel retaining nut must be tight. Shaft is locked with a piece of plastic.



Stock parts in foreground are discarded when converting engine for Novice use.

NOT THAT WE'RE FAST, BUT... WE DELIVER ALL ORDERS YESTERDAY!

Actually, we do ship the same day your order is received. Tired of hearing, "have it for you tomorrow" or, "get it the first of the week?" Maybe even, "never heard of it?" If you've heard of the part — we have it, and have received many letters to compliment us on our immediate service. No matter what your needs in the quarter midget or karting lines, you can be sure of getting it from us — yesterday.

STEEN'S
POWER PARTS

19 east valley blvd.

alhambra, california

phone ATlantic 1-4851



QM AND KART PARTS

Watch for our NEW catalog with thousands of parts, plans for karts and midgets, tuning tips, hop up ideas, track layouts and action photos. **COMING SOON!**

Just Out! WORLD'S BIGGEST AUTO PARTS & ACCESSORIES CATALOG—FREE!

- ✓ 388 PAGES
- ✓ SAVE 50%
- ✓ 1960 RELEASES



Now — **SAVE UP TO ONE-HALF** on all your automotive needs! This giant new catalog includes thousands of accessories and parts for your car, truck, hot rod, custom car or station wagon — from early models to brand-new 1960 models, as well as sports and foreign cars. It features the latest Hollywood and Custom equipment not yet in stores — new high speed parts... in addition to hard-to-find exact replacement parts for old and current models alike!

Buy Direct by Mail from Whitney — and **SAVE MONEY!**

Our tremendous buying power and huge volume enable us to cut prices to rock bottom. You actually save up to 50% and more! We stock over 100,000 items, ready for immediate shipment — with new, improved facilities to speed up service on every order. Buy everything automotive from one source. Satisfaction guaranteed.

Mail coupon NOW!

THIS COUPON BRINGS FREE CATALOG

J. C. Whitney & Co. 1917 (C-10) Archer, Chicago 16, Ill. Please send me your giant Catalog of Auto Parts & Accessories. I enclose 25c to cover part of mailing and handling cost (refunded on first order of \$5 or more). Offer good in U. S. A. only.

Name _____

Address _____

City _____ Zone _____ State _____



**100,000
ITEMS IN STOCK**

Every order shipped the
SAME DAY for speedy
service, fast delivery

CASTORENE

The Utmost in Lubrication.

Used by the
Engine

Minimum
order
6 qts.
retail

EXCLUSIVE
NATIONAL
DISTRIBUTOR

Qr. \$1.25

Dept. C
3042 Sunset (rear)
Los Angeles 26, Calif.

ECHO ENG. CO.

ELECTRIC WELD · BRAZE & CUT

REPAIR MOST EVERYTHING MADE OF METAL

Home appli-
ances. Auto
parts. Farm-
house equip-
ment. Toys.
Auto and re-
pair. Play-
ground equip-
ment. Lawn
mowers, tables, crum-
ble-free work, pipes, wa-
ter from air tanks. Cut and weld up to 1/4" steel plate. A
million uses for home, auto, farm inventors, factories, etc.
Works from any home 110 volt plug-in. Complete with dark
workroom mask, arc torch, supply of welding and brazing
rods. Solder, flux, and complete Welding Instructions Book.
Attractive portable efficient. 1 yr. guarantee. W. & B.
Send ONLY \$3.00. Cash, C.O.D. and pay postman \$0.50
plus C.O.D. sent on arrival or send
\$12.00 for P.P. Delivery. Most gift for mechanically
inclined boys, adults, relatives, friends.
Order now for early delivery. Available only from:
MIDWAY WELDER Dept. C-10, Kearney, Nebraska

REUPHOLSTER with a BRUSH!

Renew dull, faded, worn
leather or vinyl plastic up-
holstery. Car, plane or boat
seats, headliners, sidepan-
els will look new in any
color. Redesign, customize
new or used interiors. You
can change color too! Easy-
ly applied brush or spray.
RamCote Flexible Finishes

(not a paint) impregnates
leather or vinyl plastic up-
holstery. Won't chip or
peel. Fadeproof, waterproof.
Use on home & lawn furni-
ture. Write for free infor-
mation, color chart, and dealer
location.
RAMCOTE, 1141 W. 60th St.
Chicago 21, Ill., Dept. CC

RAMCOTE
FLEXIBLE
FINISHES
Restores — Colors
Protects Leather
Lacquerette or
Vinyl Plastic

ANNOUNCING
THE
MARK 3



Lil Champ
WERNER
INDIANAPOLIS STYLE ROADSTER
FULL 50" WHEELBASE
COMFORTABLY SEATS AN ADULT
BIG ENOUGH FOR A 1/2 MIDGET
SMALL ENOUGH FOR A 1/4 MIDGET
TORSION SUSPENSION ALL 4 WHEELS
\$560 READY TO RUN

LIL CHAMP CONVENTIONAL TYPE 1/4 MIDGET
ASSEMBLY KIT \$330
COMPLETED CAR \$395
PLANS AND PARTS LIST \$2.00
PRICES F.O.B. MILWAUKEE

FOR FURTHER INFORMATION WRITE:
WERNER LIL CHAMP
6454 N. 40TH STREET
MILWAUKEE 9, WISCONSIN

"KING OF THE DRAGS"



GMC blower, using a new Iskenderian drive system.

The Central California loss was the only one on the west coast. Ready for Northern California he took on all comers, including jet-hot Setto Postoian. Garlits clocked 165.78 mph in a blistering 9.02 seconds, winning the title of Top Eliminator. In the process he beat out Bill Crossley at the wheel of the class A Hashim-Hylton-Crossley machine (Crossley killed his engine, giving Don an easy 138 victory); the Cortopassi "Glass Slipper" which has turned over 160 mph; and, the Waters-Sughrue-Guinn roadster which turned a fast 163.33 mph in 9.14 seconds.

Later, Garlits ran in Chandler, Arizona, where he was clocked at 175 mph in 8.43 seconds. Still the critics kept at him. "He just hasn't run against the best drivers and the best cars," they said.

Garlits is sensitive to this kind of criticism. He feels he has raced against some mighty fast machines. The fastest car, in his estimation, was the Water's roadster ("That was the toughest of all," he says.) Yet Garlits admits he has missed competition with some of the best-known speedsters.

"I haven't run against Art Chrisman," he says, "and I know he is one of the very best."

It is because of this that Garlits' happiest moments came recently during a run at Houston, Texas. There, on a measured 1320 drag strip he clocked 182.56 mph in 8.48 seconds to win the title "King of the 1320", a title that had been previously held by Art Chrisman.

Before his sizzling 182 mph run, one eastern writer asked Garlits, "Why is it that the times you clock away from Brooksville are slower?"

Garlits had an interesting answer. "It is simple," he said, "It takes time to learn a strip. If I had had time to

get acquainted with the Central or Northern California strips or any other strip for that matter as I know the Florida strips, I could move the speeds upward. You send any West Coast driver to Florida and his times will drop until he learns the best pattern of the strip."

Don will continue to run, but next year he will run even less in Florida. The Brooksville strip is now closed. The one and only strip remaining in Florida will see some of his efforts, but he will spend most of his time (he plans to run every weekend, if he can) in the Carolinas and the mid-west.

"I'm always ready to run," he says.

Because he honestly feels this way, he cannot understand why other dragsters are not ready to do battle with him. For example, while he was participating in Central California, he was on the same strip with some of the West Coast's best speed merchants. "But after my engine blew somewhat early in the meet," he said, "and I moved north two weeks later for the second big West Coast drag race, none of the hot boys followed me."

"If any of the California boys come east to run," he added, "they will find me running against them every week. I don't mind driving a few hundred miles to run against some real competition."

Although it may sound as if Garlits has little respect for west coast competition, this is not true. He feels that the west coast is unique in drag racing.

"Eastern cars may be as fast," he says, "but for every fast eastern car there are ten just as fast in the west. Everything is on a grand scale out there."

Whether the Houston run has settled the Garlits controversy or not, Don will continue to go as fast as he can as long as he can build cars.

His current car (the basis is still the original machine he used for the first fast run at Brooksville) weighs slightly over 1500 pounds. The wheelbase is 106 inches. The frame Don made from 1930 Chevrolet parts.

The front axle, with a 55 inch tread, is made from an early Ford unit which has a two-leaf cross spring attached. Two tubular radius rods hold the axle in alignment.

The unusual wire wheels on the front of the car are homemade from Ford hubs and Borrani aluminum rims, 19 inches in diameter.

In the rear, Don has fitted a 1951 Olds rear axle unit which is rigidly mounted to the frame. The rear Olds assembly was narrowed to 40 inches, and the inside is strictly stock. With two gear ratios—3.42 to 1 for top speed and 3.63 to 1 (in combination with big slicks) for the amazing low e.t. runs.

He has fitted brakes to the rear only; they are from a '57 Olds and are fitted to 15 inch Halibrand magnesium wheels. Tires are 8.00x15 in the rear and German Metzeler motor-cycle rubber up front.

The engine itself is bigger, better and bolder than the one he first used. He had been running a stock displacement engine, but with the addition of the blower he increased the displacement with a C-T Automotive 1/2-inch, hard-chromed stroker kit with .030 oversize Forged True pistons.

However, this car is set up for only fuel competition. Garlits, who has been long rumored for a run at the NHRA Nationals, would need another car to compete in the gas-only racing classifications.

"I'd have to build a special car," he said recently, "and I'd like to. If I don't do it this year, I probably will next year."

As this article is written, Garlits' appearance at this year's nationals is doubtful, yet as you read this, at the close of the Nationals, it is possible he may have added some new records to his laurels with a new car which has been built just for the purpose.

Yet, wherever, Garlits runs he is always a man who is trying hard to go as fast as he can. Time, work and energy are secondary to the sheer joy of competing. He asks only one thing. "I don't want to be the controversial king of the drags," he says, "I just want to go fast."

★ Joe Kizis originator and producer of the fabulous AUTORAMA shows, presents...

2nd ANNUAL Rod and Custom

Auto Show World's Fair

OCT. FROM NOON TO 11:00 P.M.
21-22-23-24-25

3rd FLOOR INDUSTRIAL ARTS BLDG.
EASTERN STATES EXPOSITION
W. SPRINGFIELD, MASS.
5 BIG DAYS & NIGHTS

This is it!... The largest and most comprehensive showing of selected automotive masterpieces ever assembled in one show. 125,000 square feet of record hot rods of every class—fabulous dream customs from all over the nation in a gigantic display. Also exhibits of motor parts, accessories, equipment, everything for the rodder and customizer. PLUS: Rod and Custom Theater... an exciting program of feature movies in sound and color. New added attraction: GIANT PHOTO CONTEST!

Be sure to bring your camera.

Write or phone for information on Car Entry, Commercial Space, Program Advertising, Photo Contest. Address inquiries to:

AUTORAMA CORPORATION 2 Meadow Park Drive, Milford, Conn.
Phone: TRInity 4-5716

Orbit Seven

\$490.00 complete

Brand new 1/4 midget from East Coast! A winner in speed and looks.

THE ORBIT SEVEN
COMES COMPLETE WITH ALL THE FEATURES SHOWN (MANY OF WHICH ARE "OPTIONAL EXTRAS" ON OTHER CARS) FOR THE LOW PRICE OF \$490.00
F.O.B. STRATFORD, CONN.

DEALER INQUIRIES INVITED

FEATURING:

SPECIAL Heavy-Duty Continental AUTR Engine with Forged Rod, 6:1 Reduction Gear. All Welded Channel Frame. Demountable Hub Wheels 4" and 6". Husky Chrome Roll Bar. Atomic Welded and Chromed Nerfs and Bumpers. All Ball Joint Adjustable Front Suspension and Steering. Twin Air Scoops for Efficient Cooling. Naugahyde Upholstery. All Aluminum Parts Buffed to a High Polish. Safety Belt.

Send 10¢ for color brochure and parts list today...

THE ORBIT MIDGET MFG. CO. 400 Surf Ave., Dept. CC-10
Stratford, Conn.

Original Bailon Custom Candy Apple Paint...

Bailon's "Candy Apple" is the original of the new translucent colors. Perfected and used exclusively 'til now—at Bailon's renowned California Custom Shop.

Available in Original Candy Apple Red, Original Candy Apple Blue, or Original Candy Apple Green in complete custom kits with instructions... enough for one car with a reserve for touch up.

Specify Original Candy Apple Color and send only \$39.95, C.O.D. Shipped freight collect. C.O.D.'s send 30%

The Nation's most extreme designer and builder of competition show cars.

Number one national award winner, for custom auto designing and building, 7 out of 11 times at National Roadster show, Oakland, California.

DEALER INQUIRIES INVITED



CANDY APPLE WAX

...another new exclusive Bailon product. Formulated to protect and beautify your candy apple finish. Specify Candy Apple Red, Candy Apple Blue, or Candy Apple Green... each Bailon candy apple wax designed for a specific color... 16 ounce bottle.



the
**KANDY
KING**

Bailon Custom Shop

HIGH PERFORMANCE QM IGNITION



Specifically tailored for the AU7R engine, this Midget Center Ignition is oil proof and has positive point action at high R.P.M. Featuring hi-tensile aluminum casting. Satisfaction guaranteed. \$14.95 ppd. Dealer inquiries invited.

We furnish new AU7R engines
Modified Stock Engines \$245.00 outright
Full "B" Modified Engine \$295.00 outright
Full "AA" Modified Engine \$345.00 outright

MIDGET CENTER
MANAGING MODIFIED ENGINES

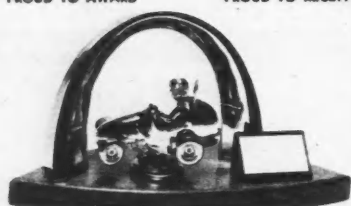


TRULY MODERN

trophies

PROUD TO AWARD

PROUD TO RECEIVE



No. 3015
Quarter Midget
Net \$6.50

Solid Walnut
Hand Rubbed
11" x 5 1/2"

EXCLUSIVE DESIGNERS AND MANUFACTURERS
BUY DIRECT FROM US AND SAVE MONEY
CATALOG ON REQUEST WE SHIP ANYWHERE

CUSTOM TROPHY MFG. CO., INC.

5017 Exposition Blvd., Dept. C-10
Los Angeles 16, California

ACER-RACER

Racer Kit
\$129.50

COMPLETELY
ASSEMBLED
RACER
\$159.50

Blueprint and
Specifications
\$2.00

F.O.B.
Cockeysville,
Maryland



DEALER INQUIRIES INVITED

SEND 25¢ FOR DESCRIPTIVE LITERATURE

The ACER COMPANY
COCKEYSVILLE, CC-10, MARYLAND

AVIATION CAREER

SPECIALIZED EDUCATION / PROFESSIONAL
TRAINING...only 16 months to 2 years

Top-pay prestige positions, bright future in aviation. Job opportunities waiting for you as soon as you're ready. Airframe and Powerplant Technician, Aeronautical Engineering Technologist, Business or Executive Pilot. Classes in Miami.

SEND FOR FREE 48-PAGE BOOK

Embry-Riddle Aeronautical Institute
Dept. F Miami, Florida (Founded 1926)

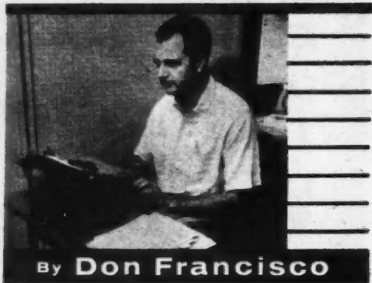
Name.....

Address.....

City.....

State.....

WHAT'S YOUR PROBLEM?



By Don Francisco

HOT STREET CHEVY

Dear Don:

I have a 1956 Chevy V8 engine that is bored .125-inch and has stock stroke. It has Jahns 10% to 1 pistons, 1957 cylinder heads with enlarged intake and exhaust ports, and a Dumtsov camshaft. The cam was from a '57 engine so I notched its rear bearing journal so oil could flow to the tappets.

I would like to know what kind of carburetors and what venturi size would be best for my Weiland four-carburetor intake manifold. I plan to use progressive throttle linkage. The engine will be in a 1932 Ford coupe. The car will be driven on the street.

I have a 1957 ignition distributor. Will this distributor work in the '56 block? Also, can I convert my 1957 solid lifters and use them in the '56 engine?

I am going to use a Cad side-shift transmission converted to floor-shift. What flywheel, pressure plate, clutch disc, throwout bearing, and throwout arm should I use? The transmission will be connected to a Pontiac 4.10 to 1 rear end.

—Dick Hunt
Clinton, Iowa

Four carburetors for street use are too many carburetors but if you use Stromberg 97's, which have 31/32-inch venturis, and the progressive linkage you mention, the engine should perform well at all speeds. Install the progressive linkage so that the two secondary carburetors will begin to open when the throttle valves in the primaries are half open. It's possible to adjust the linkage so that the secondaries open when the primary throttles are one-third open. This would be too soon for street use.

The 1957 ignition distributor is interchangeable with the '56.

Your '57 solid lifters can be used in the '56 block if you will drill a new oil feed hole in each of them. The holes must be of the same diameter and in the same location as the hole in a '56 lifter. These things don't pose any problem if you'll use a '56 lifter as a pattern.

Leave the original hole in the '57 lifter as-is.

There are two ways of connecting your Cad transmission to the Chevy engine. One is by using an adaptor plate (available) between the transmission and the standard Chevy stick-shift transmission flywheel housing. The other method is the better of the two when the engine is to be installed in an early Ford chassis. It requires a Chevy to early Ford adapter plate, which bolts to the cylinder block, and an early Ford to Cadillac adapter housing that bolts to the plate. The advantage of this setup lies in the fact that the Ford to Cad housing is fitted with Ford clutch release linkage. There is no problem connecting this linkage to the clutch pedal in the car.

Recommended for the setup that uses the stock Chevy flywheel housing is a Corvette or special flywheel for an 11-inch clutch assembly. An 11-inch Chevy truck pressure plate assembly and a 11-inch Olds driven disc are used on the Corvette flywheel. If a special flywheel is used, the pressure plate assembly and driven disc recommended by the wheel's manufacturer should also be used. The Chevy throwout assembly is used with either of these clutches.

If the double-adaptor setup is installed, use a stock Chevy flywheel and have it redrilled for a Ford 11-inch pressure plate assembly. Use an 11-inch Olds driven disc. The Ford throwout linkage in the adaptor housing is then used.

The reason an Olds driven disc is recommended is because it has the correct diameter clutch shaft bore and the correct number of splines to match the clutch shaft in the Cad transmission. Actually, any driven disc that has the correct bore diameter, correct number of splines, an outside diameter that matches the pressure plate assembly and the correct friction surface thickness for the pressure plate can be used.

IT'S A GASSER

Dear Don:

I own a 1957 Thunderbird that I like very much except for one thing. When I am driving the car on the highway at any speed over 50 miles an hour the odor of gasoline gets so bad in the driver's compartment that it almost makes me sick. The odor is much worse when the windows are down than when the windows are closed. I've checked all the fuel lines and fittings from the tank to the carburetor for leaks but everything seems to be OK. The carburetor shows signs of normal seepage but it doesn't seem to be leaking as much gas as it would take to make such a strong odor in the car.

If I can't cure this problem, I'm going to get rid of the car. I'd much rather drive it than one of the current model boxcars Detroit is now building but I can't stand the stink much longer. Can you help me with this problem?

—Gene LaPoint
Los Angeles, Calif.

I think I can help you, Gene. Being a Bird owner myself, I can appreciate how you feel

CAR CRAFT

about trading your car for a bulky "standard model."

Actually, your problem is easy to cure once the source of the fumes has been located. Gasoline sloshing around in some makes of carburetors, particularly those used on most Ford engines, will cause a gasoline odor to be noticed in the passenger compartment but the periods during which such odors are noticeable are short and intermittent. The constant odor you are experiencing is coming from the gas tank.

The filler neck for the car's gas tank is in a tunnel built into the rear of the body. Joints between the tunnel and the body were sealed with a compound of some sort when the body was built to make them airtight. However, as this sealing compound ages, it becomes brittle and quite often it will crack and destroy the seal. This makes it possible for air in the tunnel to flow into the body. The air is heavily charged with gasoline fumes because the gas tank is vented through the cap in the filler pipe. The reason the fumes are more noticeable at high speeds with one or more windows open is that the air rushing past the windows pulls air out of the car, creating a low pressure in the passenger compartment. Air in the gas tank filler pipe tunnel and other areas of normal pressure around the car try to flow into the body to overcome the low pressure condition. The gasoline fumes in the tunnel flow into the car along with the air.

You can cure your problem by resealing the joints and whatever other holes might exist in the tunnel to make the tunnel airtight again. The sealing can be done with some type of soft sealing compound, with masking tape, or with one of the many brands of cloth tape now available.

SERVICE STATION GOOF

Dear Don:

I recently had my '59 Chevy serviced at the service station where I buy my gas. They lubed the car and changed the lubricant in its transmission and rear axle assembly. Now, something in the rear end makes a chattering noise when I turn a corner or drive through a turn. The car has a Positraction rear end.

Could the lube job have anything to do with the noise in the rear end?

—Jody Jackson
Fort Worth, Texas

Your trouble is due to the lubricant in the rear axle assembly of your car. Positraction units require a special lubricant because of the way they function. Chevrolet lists the lubricants that should be used in their shop manuals. For 1959 Cars, they specify G.M. No. 3758790 or 3758791 lubricants. For 1958 cars, SAE 90 "SCL" lubricant should be used.

Take your car to a Chevrolet dealer and have the axle assembly drained and refilled with the correct lubricant. This should eliminate the noise.

Positraction rear axle assemblies are fitted with an identifying tag near their filler plug but, unfortunately, some service station operators are not familiar with the special lubricant requirements of the units.

OCTOBER, 1959

CRAGAR SUPERCHARGER KITS



NOW for
STREET USE
Offset Adapt-
er using a

Standard Quad Carburetor makes
passenger car installation practical.

For competition — increase your horse-
power 40% with CRAGAR's Gilmer-
type timing belt drive. Available only
for Chevrolet, Chrysler, and Olds.

Write for Free Literature
CRAGAR EQUIPMENT CO.

3663 E. Gage Ave., Bell, 5a, California



FOR
GMC
BLOWERS

FINEST CLUB PLAQUES IN THE NATION

CUSTOM DESIGNED FOR
YOUR CLUB!

- Heavy, 3-D aluminum or brass castings.
- Many stock designs for individual orders.
- Complete service, polishing, painting, drilling, mounts.
- Free literature.

SEND 25¢ TODAY
For complete catalog on Emblems, Badges, Decals, Plaques, Novelties — including information on how to start your club.

Stylized EMBLEM COMPANY
1072-C No. Wilton Pl., Hollywood 38, Calif.

DART-KART DOES IT AGAIN!

SETS NEW
TRACK RECORD
AT ALTON
SPEEDWAY!

PRICES
START AT \$159.00
F. O. B. Mansfield, Ohio

Engineering skill pays off for Dart-Kart drivers... and the proof is in the track records held by Dart-Kart owners. The secret... tapered roller bearing action, superb handling with 8" camber and castor, the finest two-wheel brakes, and a rugged racing frame with 100% perfect alignment. Whether you are a single-engine hobbyist or pushing the top limit of Class C competition, you'll find Dart-Kart's plus features add up to top performance.

DEALERS: Add the top performer to your line now. Protected territories. Write for full information.

Send 25c for the new 12-page Dart-Kart catalog. See why this one is a winner!



THE RUPP MFG. CO. • KART DIVISION • 304 BOWMAN ST. • MANSFIELD, OHIO

Potvin Extractor Megaphone SUPERTUNED SCAVENGER

... for Clinton and West Bend

LUSTEROUS
BUFFED
ALUMINUM
... SEND
\$9.95
PPD to:



Sorry no
Literature...

SUPERCHARGER DIVISION OF
POTVIN EQUIPMENT
P.O. Box 13c Anaheim, California

REVERSED CHROMED WHEELS

The ultimate rod or custom touch!

14 or 15 inch stock wheels are disassembled, heavy chromed, and reassembled to stock or reverse.



Riveted \$22.50

ea. exch.

Welded \$24.75

ea. exch.

Fully Guaranteed,
F.O.B.

APPLIANCE PLATING CO.

Dept. C-10, 1719 W. Rosecrans, Gardena, California

WELD

BRAZE

CUT

SOLDER



\$14.75

4 WAY
WELDER

Complete with
Two Carbon Arc
Torch and acces-
sories... to
handle all metal-
craft work.

stock, hot rod and customizing en-
thusiasts as the welder of 1001 uses.
Easily operated from properly wired
110 volt AC or DC line. The ideal
gift with a life-long use. Order
today on 10-day money back guarantee.

Literature on larger equipment on request

FOUR-WAY WELDER COMPANY

1010 S. Federal St., Chicago 16, Illinois, Dept. F64-K

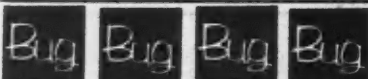
EASTERN H.Q. for all 1/4 and 1/2 MIDGETS and PARTS



We are the eastern distributors for
Mass 1/4 & 1/2 midgets.

CALIFORNIA SPEED & SPORT

254 Jersey Ave., CC-10
New Brunswick, N.J., N1 5-0311
Send 25¢ for illustrated Catalog.



GRAND NATIONAL GO KARTING SWEEPSTAKES CHAMPION

- Dick Geer took first place in all Class "B" races.
- Faye Plerson set new E.T. time in Class "A" of 42.2 sec.



Send for free brochure and literature
on The Bug (enclose 10¢ for han-
dling) to

engineering

P. O. BOX 91 CC-10 WEST COVINA, CALIF.

1/4 - 1/2 MIDGET BULLETIN BOARD

LAS VEGAS NATIONAL CALLING

Las Vegas's famed Hacienda Hotel once again hosts the nation's quarter midget field comes Thanksgiving weekend for their second annual "Race Of The Champions". Race Chairman, John Dupree, of the National Quarter Midget Incorporation of San Fernando, California, officiating group for this fall championship event, announced the dates to be the 27th, 28th, 29th of November. The huge three day meet will get off in true Hacienda tradition early Friday morning, November 27th, with qualifying commencing at 9:00 AM, terminating that evening at 9:00 P.M. Saturday morning will also be devoted to qualifiers from 8:00 AM up to 11:00 AM. Rules governing qualifying are as follows: car and driver will be allowed on the track to qualify two times only. Driver can take one error each time on track (hit pylon, put hand up before green flag is given, etc.) but driver must remain on track and take his time or qualifying will be forfeited. Races will consist of Consolation Events (25 laps), Semi-Mains (30 laps), Main Events (40 laps). Starts will all be fastest cars to the pole and front rows. The first three winning cars in each event will be immediately impounded and inspected by the NQMI technical committee. Race results will become official once the technical crew has inspected engines of event winners. Engine specifications are as follows for each racing classification. "STOCK" junior (4-8 yrs.) senior (9-15 yrs.). Fuel: gasoline only—to be furnished at meet. All cars shall have stock engines and all parts used shall be stock as listed for the series and model being used. The following modifications will be permitted. 7.3 cubic inches. Special oil dipper and gas tank. Any type carburetion may be used. Governor, muffler, fly-wheel screen and starter pulley may be discarded. Advancing of starter plate and any type spark plug. Exhaust port can be bored to remove thread only, but should not exceed .875 diameter (porting/relieving not allowed). Special valve guides, keepers and springs may be used, but stock diameter size valve heads must be retained. Battery ignition permitted. Any insert rod. Any type piston as long as it is flat head and does not increase compression ratio. Stock head and gasket must be used. One wheel drive only. "MODIFIED" junior (4-8 yrs) senior (9-15 yrs). Fuel: gasoline only—to be furnished at meet. 7.5 cubic inch displacement. All modifications allowed except the following: no alteration of stock cam or cam timing. One wheel drive only. "OPEN GAS" junior/senior inclusive ages

4-15 years. Fuel: gasoline only—to be furnished at meet. 8 cubic inch displacement. All other engine modifications allowed. Two wheel drive optional. "OPEN FUEL" junior/senior conclusive ages 4-15 years. Fuel: Methanol or gasoline—to be furnished at meet. 8.3 cubic inches displacement. All modifications permitted. Two wheel drive optional. "OPEN GAS" and "OPEN FUEL" participants please note: it has been observed by the technical committee that the rear tread width of 32-inch is inadequate for faster cars on asphalt surfaced tracks. Therefore, we strongly advise car owners to meet this minimum requirement. Any car that is lifting excessively will not be permitted to participate. Basic engine specifications for all classes is as follows: four cycle, two horsepower only. No over-head valve engines allowed. No stroking, fuel injection, or supercharging permitted. American manufactured engine only (foreign made engine must be approved by the technical committee). Direct drive only; no clutches. Only No. 216 and No. 405 cams allowed in "STOCK" and "MODIFIED" Continental engines. Flywheel must be ninety-five percent of the manufacturer's weight in all "STOCK" and "MODIFIED" classes. Gearbox is not considered a part of the engine in any division, therefore, any type gear reduction is permitted. Fuel additives of any type are not permitted in any division. Car specifications are restricted to those universally applied to all national events. Roll bars are mandatory as well as protective clothing for all drivers. Entry fee is three dollars and fifty cents to be paid when entering pit gate. Entry fee covers one car, one driver, two pit men. All entries and inquiries should be directed to the National Quarter Midget Incorporation of San Fernando, California. P.O. Box 549, San Fernando, California. Entries close November 21st. For your convenience, use entry blank below. See you in Vegas!

LAS VEGAS "RACE OF THE CHAMPIONS"

Association _____

Car Owner _____

Driver _____

Championships, record, held by driver _____

Car Number _____

Class: STOCK ☐ MODIFIED ☐

GAS ☐ FUEL ☐

TRACK LISTINGS

CAMARILLO, CALIFORNIA

TRACK: asphalt. RACE DATE: alternate Sunday afternoons and Friday nights. QUALIFYING: Sunday qualifying commences at 1:00 PM. Friday nights 6:00 PM. GENERAL RULES AND REGULATIONS: all cars must be equipped with the following safety features: approved roll bars, safety seat belt, bumper front and rear, positive one wheel brake, outside ignition switch, fully extended metal firewall, cut-away belly pan exposing underneath side of engine compartment. DRIVER: approved crash helmet, goggles, leather or other protective clothing. ENGINE SPECIFICATIONS: "Stock"—7.3 cubic inches, following modifications to engine

Camarillo Quarter Midget Racing Association, Inc.

allowed—rod, gearbox, oil pump, ignition, carburetion, split-type keepers on valves as long as they remain stock size. "B Modified"—7.5 cubic inches; all modifications allowed except for alteration of stock camshaft. "A Gas"—8 cubic inches; all modifications permitted. "AA Fuel"—8 cubic inches; all modifications allowed. No engine in any modification may be bored or stroked except for the over-bore allowance in "B Modified" "A Gas" and "AA Fuel" divisions for clean-up of cylinder. TRACK LOCATION: North Calleguas off Highway 101, Camarillo, California.

Introducing the

HELLCAT



THE HOTTEST KART GOING! and It really GOES!

ZOOMING down the track, you have the quick-as-a-cat response—instantly, you feel the HELLCAT take your slightest driving effort and convert it into the hottest, sweetest handling Kart going.

Outstanding race-car design brings you all of the speed and performance possible. Yet, safety and endurance are retained.

Meets all requirements of AKMA championship competition regulations

HELLCAT quick-change features offer completely flexible planning for both Class A, Class B and Class C competition. Basically a Class A Kart, the HELLCAT can be quickly converted to the Class B WILDCAT Model with quick-change assembly units.

NO OTHER KART OFFERS SUCH FLEXIBILITY—
Available in kit or assembled models.
Powered by West Bend engine.



QUICK CHANGE
SPROCKET

DEMAND ACTION
BRAKES

RESPONSE
STEERING

RACING
SUSPENSION

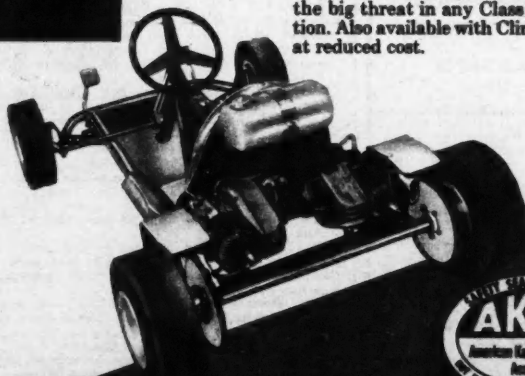
RED HOT Class B WILDCAT

Instantly converted from basic HELLCAT Model, the WILDCAT is the big threat in any Class B competition. Also available with Clinton engines at reduced cost.

DESIGNED FOR SPEED

by Frank Kurtis designer of over 120 Indianapolis 500 competition cars.

Frank Kurtis



PERCIVAL COMPANY, INC.
BOX 701, BOONE, IOWA

Please send
me FREE
information

The NEW
HELLCAT
& WILDCAT

NAME _____
ADDRESS _____
CITY _____ STATE _____

Dealer inquiries invited

STANDARD FEATURES

- Chrom-moly tubing space frame
- Entire car cadmium-plated
- Polished cast aluminum wheels
- Rack and pinion type steering
- Unitized clutch and spot disc brake
- Lock rear end—quick change sprocket
- Cast aluminum foot rests

Warranty

Every Cad-Cart is numbered and registered to the original owner providing a 100% guarantee against defects of workmanship, design or assembly.

Cad-Cart

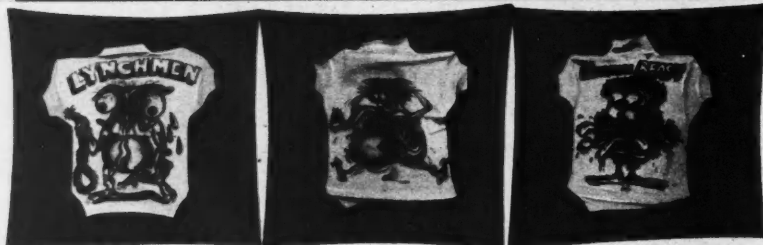
Incomparable precision engineering, the finest kart machine available



Cad-Cart

Write for exclusive dealer franchise plan
5701 S. San Pedro St., Dept. C
Los Angeles 11, California

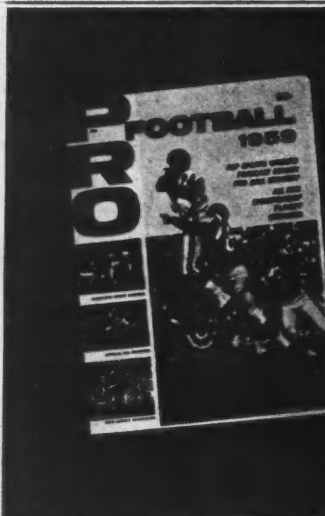
One Complete Price
\$28950
F.O.B., our plant
Plus state tax
25% down with order
Balance on delivery
AD 2-7249



This month we celebrate our boss' return from the state nuthouse. It was there that the above designs were originated. The new low price on the short sleeve shirts is \$1.98. We have hundreds on hand—no waiting. Order one of the above or Throttle Jockeys, Racers Inc. or Slobs Inc. We don't intend to make money on these shirts, but if you want pin-striping, car names or scallops, come to our crazy place in Maywood (Los Angeles) and let us wall man wall. Send 25¢ for weird shirt and pin-striping material catalog.

\$1.98
Cal. Res.
Add 4% Tax

Rerh..
STUDIOS



ON SALE NOW!

1959 PRO FOOTBALL

You're practically on the 50-yard line with this terrific collection of player and team photos, statistics. Features on top veterans, rookies, team strategy. Plus complete predictions for the coming season!

ONLY 50¢ AT NEWSSTANDS!
Or mail coupon below

PETERSEN PUBLISHING CO.

5650 Hollywood Blvd., Los Angeles 28, Calif.

Send me _____ copies PRO FOOTBALL 1959 at 60¢ each (covers postage etc.)

NAME _____

STREET _____

CITY _____

ZONE _____

STATE _____

COMING EVENTS

SHOWS

Boise, Idaho—Sept. 13; Rod & Custom Show, Boise Timing Assn.
Evansville, Ind.—Nov. 7-8; 2nd Annual Mid-States Autorama, Roberts Municipal Stadium, sponsored by Road Knights, Inc.
Des Moines, Iowa—Oct. 24-25; 5th Annual International Motor Sports Show, Veterans Memorial Auditorium.
West Springfield, Mass.—Oct. 21-25; 2nd Annual Rod & Custom World's Fair Auto Show, Eastern States Exposition Fairgrounds.
Kansas City, Mo.—Auto Capade, Sept. 12-13; Exhibition Hall.
Chatham, N. J.—Nov. 28-29; Auto Show presented by Squires, Colonial Plocc.
Tennock, N. J.—Oct. 10-11; 2nd Annual East Coast Roundup, Armory, sponsored by Drivin' Deuces.
Portland, Ore.—Oct. 30-31, Nov. 1; Portland Roadster Show, Pacific International Bldg., sponsored by Multnomah Hot Rod Council.
Seattle, Wash.—Oct. 2, 3, 4; Seattle Seafair Autorama, Civic Auditorium Lower Level.
Shroygan, Wisc.—Sept. 19-20; Custom Car Show, Armory, Kettle Moraine Motor Club.

NHRA DRAG SCHEDULES

Dethan, Ala.—9/20, 10/3, 4; 10/10, 11. Wireglass Timing Assn.
Helena, Ala.—1st & 3rd Sun.; Birmingham Timing Assn.
Winslow, Ariz.—3rd Sun. Renegades
Little Rock, Ark.—1st & 3rd, Mid-South Timing Assn.
Carlisle, Ark.—2nd Sun.; Arkansas Timing Assn.
Madera, Calif.—2nd Sun. Madera Clutchers, Inc.
Oroville, Calif.—2nd & 4th Sun. Oroville Clutchers
Palmdale, Calif.—4th Sun. Antelope Valley Timing Assn.
Redding, Calif.—3rd Sun. Shasta Roadsters, Inc.
San Luis Obispo, Calif.—3rd Sun. San Luis Obispo Co. Timing Assn.
Santa Maria, Calif.—1st Sun. Dragons, Inc.
Visalia, Calif.—9/27; Vapor Trailers, Inc.
Grand Junction, Colo.—9/13, 27; 10/11, 25; 11/8, 22; 12/6, 20. Grand Junction Hot Rod Council.
Julesburg, Colo.—9/10; Platte Valley Custom Club.
Davis, Fla.—2nd & 4th Sun. Broward Auto Club.
Kissimmee, Fla.—1st Sun. Central Fla., Timing Assn.
Lakes Wales, Fla.—2nd Sun. Triangle Timing Assn.
Miami, Fla.—1st & 3rd Sun. So. Fla. Timing Assn.
Sebastian, Fla.—2nd & 4th Sun. Asphalt Angeles Hot Rod Club.
Venice, Fla.—1st Sun. Vagabonds, Inc.
Oswego, Ill.—Ev. Sun. Oswego, Dragway.
Indianapolis, Ind.—2nd & 4th Sun. Indianapolis, Timing Assn.
Coffeyville, Kans.—2nd & 4th Sun. Coffey Grinders N. R. Club.
Parsons, Kans.—3rd Sun. Queen City Pacers.
Hammond, La.—4th Sun. Ponchatoula Jaycees.
Opelousas, La.—1st & 3rd Sun. Pelican State Auto Club.
Sanford, Maine—2nd & 4th Sun. New England Hot Rod Council.
Orange, Mass.—3rd Sun. New England Timing Assn.
Detroit, Mich.—Opening Aug. nights & weekends; Detroit Dragway.
Minneapolis, Minn.—ev. Sun. Twin City Optimist Club Timing Assn.
Greenville, Miss.—1st & 3rd Sun. Delta Angeles; Greenville AFB.
Belgrade, Mont.—2nd Sun. Bozeman Pacers.
Butte, Mont.—3rd Sun. Silver Bow Timing Assn.
Grand Island, Neb.—9/12, 13; 10/11. Grand Island Jaycees Timing Assn.
Lincoln, Neb.—9/6, 20; 10/4, 18; 11/1, 15, 29. Shovado Auto Club.
Scottsbluff, Neb.—10/4; 11/4. Nile Valley Timing Assn.
Carson City, Nev.—3rd Sun. Silver State Timing Assn.
Syracuse, N.Y.—ev. Sun. Empire State Timing Assn.
Hobbs, N.M.—1st Sun. Charlotteers Auto Club.
Reservoir, N.M.—2nd Sun. Dusters Auto Club, Walker AFB.
Elizabeth City, N.C.—2nd & 4th, Eastern Carolina Drivers Assn.
Oklahoma City, Okla.—Ev. Sun. Okla. City Drag Strip.
Tulsa, Okla.—1st & 3rd Sun. Tulsa Timing Assn.
Aurora, Ore.—1st & 3rd Sun. Multnomah Hot Rod Council & Northwest Timing Assn.
The Dalles, Ore.—9/20; Mid-Columbia Timing Assn.
Scappoose, Ore.—Columbia Timing Assn.
York, Pa.—7/12 & ev. other Sun. South Penn. Hot Rod Council.
Charlestown, R.I.—1st Sun. So. New England Timing Assn.
Halls, Tenn.—4th Sun. Memphis Roadsters, Inc.
Abernathy, Texas—4th Sun. Tri-City Drag Assn.
Caddo Mills, Texas—1st Sun. North Texas Timing Assn.
Marfa, Texas—3rd Sun. Marfa-Alpine Drag Strip
New Braunfels, Texas—3rd Sun. Central Texas Racing Assn.
Wichita Falls, Texas—2nd Sun. Red River Timing Assn.
Petersburg, Va.—ev. Sat. Eastern Dragway, Inc.
Roanoke, Va.—1st & 3rd Sun. Roanoke Dragsters, Inc.
Kent, Wash.—open Aug. & ev. other Sun. Pacific Motor Raceway, King Co. Youth Auto Council.
Opelousas, La.—Oct. 31-Nov. 1; State Championship.

CAR CRAFT



LOOK INTO A MOSS 1/4 OR 1/2 MIDJET TODAY

SEE WHY MOSS is setting the pace in small car styling... is rated as America's most precision and highly engineered small race car. Before you buy, check the **EXCLUSIVE FEATURES** found on the Moss Midjet.

REMEMBER... It costs no more to own a **WINNER** so...

WRITE SOON FOR
TO

COLORFUL DETAILS OF THE MOSS CARS AND ACCESSORIES.
PLEASE SEND 25¢ TO COVER POSTAGE AND HANDLING

MOSS ENGINEERING

405 EAST BEACH AVENUE, INGLEWOOD, CALIFORNIA

MOSS

also makes Accessories for other Karts and cars.
These EXCLUSIVE race driven Accessories are now standard on all Moss cars.

BACK AND FRONT STEERING

RED CAST ALUMINUM COMPETITION WHEELS

INTERNAL EXPANDING ALUMINUM BRAKE

WRITE DEPT. C-10

Name _____

Address _____

City _____

State _____

DEALERS—Write or wire for territories

**OVER 200 PAGES OF THE MOST
EXCITING HOT RODDING MATERIAL
EVER COMPILED IN ONE VOLUME!**

THE COMPLETE BOOK OF HOT RODDING

"COMPLETE" is truly the word to describe this amazing book. For beginners and seasoned hot rodders, from basic theory to the latest in techniques, **THE COMPLETE BOOK OF HOT RODDING** covers the entire field in detail. Authored by automotive magazine publisher Robert E. Petersen and the editors of **HOT ROD** Magazine, this master reference is certain to provide you with scores of ideas YOU CAN USE.

• **THE HOT ROD STORY**—Learn how the sport of hot rodding actually began. Here is the complete history of its development. This section also discusses the rise of organized hot rod activity.

• **HOT RODDERS TACKLE THE WORLD'S ENGINES**—How to get more power. Covers such basics as the four-stroke engine cycle, cylinders, pistons, crankshafts, connecting rods, valves, camshafts.

• **THE TRUE FACTS ABOUT HORSEPOWER**—Hot rodders use the terms torque and horsepower constantly, yet are often unable to define them. This chapter gives you all the details.

• **GETTING MORE HORSEPOWER FROM YOUR ENGINE**—Boring and stroking, porting, oversize valves, reground camshafts, valve springs, carburetion and the exhaust system.

• **YOUR ENGINE'S VALVES**—It's doubtful if any of the internal parts in a high-performance engine work harder than the valves. Here's how to disassemble, inspect, recondition, adjust.

• **THE COMPLETE STORY OF ENGINE CARBURETION**—Single, dual, triple, quad carburetors. The problems of progressive linkage. Maintenance and service for better starting, acceleration and economy.

• **YOUR ENGINE'S ELECTRICAL SYSTEM**—High-performance ignition, magnetos, distributors, coils, condensers, spark plugs, batteries, generators, regulators. Better performance by ignition conversion.

• **ENGINE BALANCING**—How hot rodders who want top performance go about the complete re-balancing of the rotating and reciprocating parts of the engine's crankshaft and rod and piston assemblies.

• **FACTS ON HIGH COMPRESSION**—This section shows you how to improve performance through higher compression ratios. Of particular interest is the information on high octane fuels.

• **THE PROS AND CONS OF FUEL INJECTION**—The latest developments in the field of fuel injection systems. Power and economy aspects vs. carburetor-type fuel systems.

• **SUPERCHARGING FOR INCREASED PERFORMANCE**—This chapter attempts to answer the question, "How much more power can you expect from forcing more fuel and air into the cylinders?"

• **ENGINE SWAPPING FOR MORE POWER**—Savings in time and money can be made by installing a bigger engine. Here are methods of installation to help solve problems of mounting, transmission hookup.

• **CHOOSING THE RIGHT TRANSMISSION**—Transmissions for cars used by hot rodders: a passenger car used only for normal driving, a competition car used strictly for straightaway competition, etc.

• **BUILDING YOUR OWN HOT ROD**—Choosing the basic car. Chassis, body, suspension modifications. Building for street or competition, or both. Examples of the best.

• **THE ABC'S OF TROUBLE SHOOTING**—Every engine malfunction problem is discussed in easy-to-understand detail: ignition system, battery and cables, ignition wiring, distributor shaft, etc.

• **RACING TIRE PROBLEMS**—How to figure the proper width and diameter of a racing slick in relation to horsepower. Getting the best traction; the most service; the most safety.

**PLUS A THOROUGH ALPHABETICAL
INDEX AND SPECIAL GLOSSARY OF
ALL THE BASIC TECHNICAL TERMS**

CLOTHBOUND • HUNDREDS OF PICTURES • ORDER NOW!

\$5.95

postpaid

**CLIP
AND
MAIL
TODAY!**

PETERSEN PUBLISHING CO. DEPT. CC-5

5959 Hollywood Blvd., Los Angeles 28, Calif.

Enclosed is \$_____, @ \$5.95 each postpaid. Please send me _____ copies of **THE COMPLETE BOOK OF HOT RODDING**.

NAME _____

ADDRESS _____

CITY _____

ZONE _____

STATE _____



CUSTOM QUERIES

George
Harris
HARRIS CUSTOM SHOP

PERSONAL PONTIAC

Dear George:

I am customizing a '57 Pontiac and I would like to know if you have any ideas in respects to the grille and taillights?

—Tudd Christopherson
Saskatoon, Saskatchewan

For your particular car, Tudd, I can't think of any type of grille that could give more of a custom appearance and at the same time lend a wider look to the front than a tubular bar grille. The only problem that you'll run into is that there are none manufactured for the '57 Pontiac. To solve this, you can do one of two things: make your own of tube steel and angle braces, or cut and fit an assembly made for another car. I would suggest, if you follow the second alternative, that you measure the grille cavity on your Pontiac and then try to find a grille that will fit within this measurement best. Then, all you'll be worried about is slight trimming.

I imagine that you want to change the taillights to achieve a different appearance. If this is the case, then there is a substitution that is a gem for '57 Pontiacs, but is not at all common. I'm referring to the '59 Nash Ambassador lenses. There will be little work involved in installing them in the Pontiac housings, and for an added personal touch I would attach two small chromed bullets to the twin tube sections.

BUICK-FIED BEAUTY

Dear George:

For quite sometime, I have been searching for a taillight switch and grille substitution for my '57 Ford. I don't want to build a grille or lens unit, I just want to find some type of assemblies that would look sharp and not be too common. Do you have any suggestions?

—Jim Foley,
Manchester, N.H.

Call an end to your search, Jim. I think you'll be pleased with the results you'll have by replacing the Ford taillights with '59 Buick units. The streamlined lenses and housings will fit without much work involved and really comes on. For added appeal, why not french the units? Be sure, however, that you use correct welding and leading procedures in this operation.

Drop down a year to the '58 Buick checkered grille for your Ford. True, these switches have been seen before, but for ease of installation,

you can't beat it. Attach the grille from the front. You'll need to do a little work in mounting. You might check the April '59 issue of Car Craft Magazine for a complete how-to-do-it story on this type of installation.

SAME FOR BOTH

Dear George:

I would like to install either the '56 Buick or the '56 Chrysler taillight lens in my '56 Chevy. Which of the two should I use? They both appeal to me, so my choice will be in the amount of work required to put them in.

—Dan Leward,
Chicago, Ill.

You're going to have to make some sort of a choice, Dan. To install either one of these lenses, you'll do the same amount of work. The simplest and easiest method is to remove your old lenses and cut and fit an aluminum backing for the taillight housing. Then, you can add either the Chrysler or the Buick lenses. Two notes of insertion: you'll need to remove the gas filler pipe from the left side and install it in the trunk. Also, you might find that the Buick lenses are more common in the '56 Chev than are the Chrysler units. Therefore, you might want to install the Chrysler lenses rather than the Buick units.

PLYMOUTH PROCEDURE

Dear George:

I am in the process of customizing my '57 Plymouth. Right now, I am stymied as to which quad headlight assembly I should use and whether or not to install '57 Corvette taillight bases with '59 Cadillac lenses in place of the stock lights. What should I do?

—James Neal,
Jacksonville, Florida

The first thing you should do is to run right down to your local Plymouth agency and pick up a set of '58 Plymouth quad headlight assemblies. You'll find that these will quickly and easily replace your '57 headlights and parking lights. It's a simple matter of bolting them on.

I don't think the Corvette/Cadillac idea is your best bet. I would suggest you try making a flat plastic backing that will replace your present taillight lenses. This will look sharp alone, but if you like the Cad lenses, then install these to the backing. This will give you a lot better appearance, and a lot less trouble in construction and installation.

PLYMOUTH ALA CHEVY

Dear George:

I have a '58 Plymouth two-door hardtop and I would like to know if the '59 Chevrolet taillights will fit in the taillight fin cavity? If they won't, do you have any other suggestions?

The only other thing that bugs me is the front end, particularly the bumper and grille. What can I do to

change these as I would like to have straight, flowing lines?

—Ray Rauch,
Lexington, S. Carolina

The '59 Chevy taillights can be made to fit your fin opening, Ray. Actually, it's a matter of trimming the cavity to fit the lenses. This is not a common switch, so I think you'll have a real winner if you make this substitution. If you would rather keep the stock lenses, you might try plastic knobs on your present units. Get some 1/4" white plastic and cut it into vertical half-round sections. Use some plastic cement and attach them to the face of your lenses.

About the best substitute for your stock grille would be a handmade assembly featuring a perforated or mesh screen for background with drawer knobs or pulls mounted. You must cut and trim the metal screen to fit your cavity; make new brackets of angle iron. When you have the hardware evenly spaced on the screen, simply bolt them on as you would to the drawer or door for which they were originally designed. There is no simple and easy bumper that can be adapted to your Plymouth. If you can handle it, and don't mind the work involved, your best bet is to alter the front and rear bumpers from a '59 Chev. These will give the straight lines that you desire.

ONE-PIECE HOOD

Dear George:

I have two problems I would like answered. I own and am customizing a '48 Mercury. I am doing the usual dechroming, lowering, etc., but I am definitely stuck for a grille replacement. Are there any manufactured for this model Merc?

My second problem concerns the hood. The main trouble with the stock unit is that it happens to be in two pieces. I don't want this, I want a one-piece hood, but I don't know which (if any) to use. Is there a one-piece hood I can use?

—Howard Eakin,
Vancouver, Canada

Since you want a manufactured grille for your Mercury, I would suggest you contact Detroit Grille Co., 258 East Vernor, Detroit 1, Michigan. They market a very attractive grille that will replace your stock assembly. For your hood replacement, try a '41 Mercury hood. You should be able to find one that is in good shape at a wrecking yard. You'll be faced with body work in the form of trimming and fitting. You'll also have to make a change in the hinge springs for a perfect fit. This won't entail too much work on your part, however.

OLDS IDEAS

Dear George:

I have just finished reading your column in the August '59 issue of Car Craft and am wondering if you could give me some information on my '54 Oldsmobile 88. I would like to put '56 Packard taillights in, but do you think this would be good for the Olds? I know what kind of tail-

lights I want, but I haven't the faintest idea as to what I should use for a grille. I would like something that won't cost too much money, time, or work. Do you have any suggestions?

—Harry Hartman,
Jacksonville, Florida

Since you seem to be in favor of the Packard taillights, my only advice is to go ahead and use them. They look very nice when they are franchised-in. If you want another light suggestion I would say you might be interested in the '53 Chrysler assembly. This is another neat installation for the '54 Oldsmobiles. You'll do the same work for both.

As for your grille, you can easily install the '54 Chevrolet grille assembly in the Olds cavity. You can use this in three different ways: either the straight bar with no teeth (they can be removed easily), or the stock unit as it comes, or add a few extra grille teeth on the center bar. You can find the necessary parts at your local Chev dealer. Any one of these three ideas will look sharp. If you really want to be different, and I see by your letter that you don't want to spend much time or money, you might build a special grille with mesh screen filling the cavity with drawer pulls or knobs spaced evenly on it. You might also investigate a checkerboard-type grille constructed of 1" by 1/2" plastic strips. This is the latest fad.

THE WHOLE WORKS

Dear George:

I will shortly be customizing my '54 Mercury. But, before I start I would like your advice on a few items.

On the front end, I would like to replace the grille and bumpers. What should I substitute? Secondly, will '56 or '57 Ford side trim attach to the sides of the Merc? Thirdly, how can I adapt a '58 Chev Impala wheel to my steering shaft? And finally, what do you think of scooped quarter panels? If you have other suggestions they would be most helpful.

—J. Laorenze,
N. Andover, Mass.

Because of the heavy appearance of your stock '54 Mercury bumpers, they usually seem to be the first things to go when a customizer begins work. There have been many variations on substitutions, but I have found that one of the best is the '53 Pontiac split bumper bar combination. They seem to be naturals for the '54 Merc and don't give a heavy look to the front. Then, you can french-in the stock grille shell using U-shaped tubing. To fill this now-smooth grille cavity, you can choose from either a mesh screen grille with chrome bullets or plastic half-sections of bullets. You might also find that a simple tubular grille would look nice. Any one of these three ideas would lend themselves well to the front end.

For side trim, it's all a matter of personal choice. Both the '56 and the '57 Ford pieces can be cut to fit the side contours of the Merc. It's about the same amount of work for either one, depending of course, on where (high, low, forward, rear) you desire to place the trim.

Apparently everyone is going for the '58 Impala steering wheel. To attach this distinctive

wheel to your car, or on any other vehicle for that matter, you'll have to take it to a machine shop and have it machined to match the design of your Merc's shaft. Then, simply attach it in the standard manner.

Very few cars possess a set of quarter panels that are almost begging to be scooped as does your Merc. This is also one of the first modifications performed on this model and is often considered among the best. Definitely scoop those panels. Use 1/4" round rod for smooth contours around the opening. You might like the Merc teeth, already on the side panels, protruding from the openings.

A final suggestion is to install a '54 Cadillac bumper on the rear. They can be made to fit with some work involved, mainly in sectioning to fit, but the final appearance is well worth the time and work.

ROLLED PANS

Dear George:

For some time I have been contemplating rolling the rear pan on my '57 Ford. It looks like it should be fairly easy, but is it?

I know this was a very popular feature on the early roadsters, but there seems to be a lag in the late model cars. Is this because it is too difficult a job?

—Warren Barker
San Diego, Calif.

Quite a few customizers have not realized that rolled pans are relatively easy on the later model cars. Unfortunately, they have not reached the popularity with the late model cars as with the old street roadsters.

You are in luck, Warren, as this particular issue contains a complete story on rolling the rear pan on a late model car. If you can't wait, turn quickly turn to page 28 for the full information on rolled pans.

IMPERIAL TAILLIGHTS

Dear George:

My car is a '58 Pontiac and I would like to change the over-all appearance of the taillights. I would like to know if I can substitute the '56 Oldsmobile taillight lens for that of the Pontiac. There are only two things which at this time are hampering me: first, will they fit? If they don't fit, easily, how much would it cost to have it re-worked to fit? I don't want to spend much money for this alteration, so if it is expensive, give the word and I'll look around for something else.

—Bill Varraber,
Toledo, Ohio

One of the best alterations you could choose is fairly simple and costs far less than what you would pay to try to adapt your original idea. I would suggest you visit your local Imperial dealer and buy only the taillight lenses that were made for the '57 Imperial. These are extremely neat looking lenses and will make a fine addition to your Pontiac. Don't bother to remove your present lenses. Install the Imperial units directly to the stock lenses. This will give an individualistic look, plus save you some of the green stuff.

BUILD A 1/4 MIDGET
COMPLETE PLANS,
DRAWINGS, PHOTOS,
SPECS and PARTS LIST. \$200 postpaid
Dept CC-10

MY-T-MITE

NEW 'RODDING & CUSTOMIZING' CATALOG

FREE

SAVE — ORDER DIRECT from Nation's largest supplier! 1000's latest Speed, Power, Mileage, Racing Equipment and Custom Accessories for ALL CARS! Low-cost prices anywhere! Shows ALL brands plus "TOP TUNING TIPS" by Champion Don Garlits. Write ... IT'S FREE!

ALMQUIST

SAVE TO 60%
ORDER DIRECT

ENGINEERING, MILFORD, PA. Dept. CC-10

LUTHER DAYTONA VIPER

\$59500 F.O.B. Pasadena, California

Dealer Inquiries Invited

Fully Suspended Torsion Bar Q.M.

LUTHER ENGINEERING 6 Esther St., Dept. CC-10
Pasadena, California

CUSTOM EMBLEMS

We specialize in designing and producing custom emblems, jackets, and T-shirts for all clubs and associations.

New Quarter Midget emblem #526 5"x7"
two color design. Washable.
felt. 50c; satin. \$1.00.

LARRY LINK
has a range of all new emblems at...

PERSONAL NAME EMBLEMS
and embroidered on embroidered White cloth

Send \$1.00 for 100% complete illustrated catalog, emblems, and accessories... 25¢

P.O. Box 66
Culver City 13, Calif.

SPOT ENTERPRISES

FULLY SUSPENDED

KURTIS-KRAFT

KARTS • QUARTER & HALF MIDGETS

Send 25¢ for illustrated brochure

FRANK KURTIS CO.
525 W. Colorado
Glendale, California

INDIANAPOLIS SPEED SHOP
254 Massachusetts Ave.
Indianapolis 4, Indiana

NO OTHER KART CAN MATCH A

Swoopster

Comfort & Safety at Speed

SUPER HANDLING IN COMPETITION

LMC midget motors

1417 North Main Street, Evansville, Ind.

185.566 MPH NEW WORLD RECORD 1/4 Mile



GARLITS EXPLODES TO NEW MARK AT BROOKSVILLE, FLA.

They say that records are made only to be broken, and Don Garlits, the Tampa Terror, is such a staunch believer in this adage that racing officials now enter his records in pencil—for easy erasure. Following his big triumph in the final run of the U.S. Fuel-Gas Championships at Lodi, Calif., Don predicted he might hit 190 mph before too long. Many scoffed and dismissed this as 'headline-seeking' talk; but after this latest record shattering run a lot of opinions have been revised. Garlits attributes much of his new found power to the new, sensational Isky, Glimmer belt-driven Forced Induction Kit and, of course, the always dependable power of the Isky 5 Cycle Cam and Engineered Kit.

THE RECORD THAT WAS NEVER REPORTED — THE LODI MISCUE

A new world record was actually established at Lodi during the 2nd run of the U.S. Fuel-Gas meet... but was never released. Here are details. After trying several fuel combinations Garlits settled on a 50% mixture and then made one of his monumental runs. Unbelieving officials looked twice and gasped... and then asked for an impartial observer. Before he got there, however, they asked the operator at the Crondex clocks to push the 'SET' button. Instead he mis-

takenly pushed the 'RESET' button. According to Strip Manager, Bob Cress, 3 officials witnessed the time but because of the unfortunate mistake realized that any official sanction might be construed as 'fixed'. Discreet confidence, therefore, was maintained until Garlits vindicated a future announcement of this phenomenal run.

GOOD NEWS FOR DRAGSTERS WITH RESTRICTED BUDGETS

Even though your working capital is stretched rather thin you'll soon know what it's like to hit the magic 180 mph class. Isky Engineers are completing final tests on grinds for the economical early, 331 cu. in. Chryslers ('51-'54), supercharged. These 'salvage-type' engines that can be picked up for a song

indicate that they're capable of better than 180 mph on fuel and 160-mph on gas. Our recent poll on Formula, U.S.A. indicated opinion evenly divided on size limitations of engines. However, based on readers' comments we predict that strip operators will eventually organize separate classes for the smaller engines.

FLASH:

NEW WORLD'S RECORD FOR DRAG BOATS!

At Kingsburg, Calif. Jack Williams driving his Chrysler powered, Isky equipped Belmont hull (Golden Commodore) not only became the second boat in history to reach 110 M.P.H. in 1/4 mile, but did it twice in the same day, with one run good for a new world's record of 110.77 M.P.H. We at ISKENDERIAN are doubly proud since the former record as well as the new record were both set using ISKENDERIAN CAMS.



DRAG STRIPS and RACE TRACKS ARE BUT PROVING GROUNDS
TO ESTABLISH THE FACT THAT

YOU GET MORE DOLLAR VALUE FROM ISKENDERIAN CAMS AND KITS

It's quite natural that the fastest engines receive the headlines, but one fact is always obvious. The manufacturer that has the know-how to produce winning combinations in the top classes must use this same knowledge to produce superior products in ALL classes. Iskenderian Cams not only produce exceptional power, but they're engineered for long life and trouble free performance—the most ECONOMICAL COMBINATION OF ALL.

**ONLY ISKENDERIAN
GIVES YOU PROTECTION THREE WAYS—
BEFORE YOU BUY! WHEN YOU BUY! AFTER YOU BUY!**

LOOK! See CHAMPS IN ACTION .. on 16MM COLOR FILM

Iskenderian has done it again! In order to bring all the thrills, action, and sound of a big drag meet to the thousands of enthusiasts who have no opportunity to view such an event, we commissioned a professional crew to film and record the highlights of the recent U.S. FUEL-GAS twin meets. Copies are now being processed and will be available for lease to clubs, schools, etc. Write immediately for details and reservations.



VALVE TIMING FOR MAXIMUM OUTPUT

New 1959 spring edition now available
A must for every top tuner and
newcomer to fully understand
valve gear action. ONLY \$1.00.

NEW 1959 CATALOG

Soon off the press. New giant size with complete
information on Rollers, Hi-Rev, 5 Cycle, Foreign
and Sports Cars, Micro-Midgets, Go-Karts, Motor-
cycles, Marine, etc.



ED ISKENDERIAN

607 North Inglewood Avenue, Dept CC, Inglewood, California ORegon 8-7791

ISKY ROLLER CAMS
and ENGINEERED KITS

ISKY 5 CYCLE CAMS
and ENGINEERED KITS

ISKY HI-REV CAMS
and ENGINEERED KITS

ORDER BY MAIL



NEW ITEMS

ORDER BY MAIL

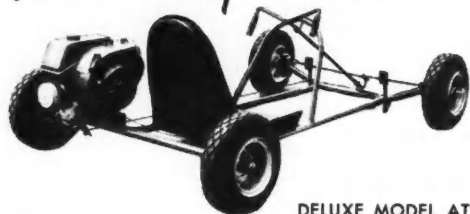


MANTIS

KART

THE PESTY MENACE OF EVERY TRACK

Don't Pay More



- UPHOLSTERED
- ASSEMBLED
- PAINTED
- READY TO GO

DELUXE MODEL AT AN HONEST PRICE

We Searched the Field and Came Up With Another Honest Bargain. This Met Our Specifications For A Safe, Durable, Easy To Handle Kart.

Check These Features and Price Against Any Other Made Regardless of Price.

COMPLETELY ASSEMBLED
GREEN ENAMEL FINISH
FLOOR MAT
CUSTOM FITTED BLACK NAUGAHYDE UPHOLSTERY
SCIENTIFIC PROVEN STEERING YOKE WITH RUBBER HANDLE GRIPS
SAFE POSITIVE STEERING
ALL NEW CLINTON A-400 2 1/2 H.P. 2 CYCLE, 5.76 Cu. In. WITH RECOIL STARTER
FOOT OPERATED SPOT BRAKES SAME TYPE AS USED ON INDIANAPOLIS 500 MILE CARS
DEMOUNTABLE WHEELS
HIGH SPEED BALL BEARING WHEELS
REMOVABLE SPINDLES
LOWERED FRAME
AIRCRAFT CONSTRUCTION CHROME-MOLOY FRAME MEMBERS

4-FULL PNEUMATIC 300 x 5 TIRES INTER-CHANGEABLE WITH REAR
BRAKE AND THROTTLE LINKAGE FOOT OPERATED
AUTOMATIC CLUTCH optional at small additional cost

WITH ALL FEATURES
LISTED — WITH
DIRECT CHAIN DRIVE

\$146⁶⁶

F.O.B. DUARTE, CALIF.

Add \$15.00 if automatic clutch is desired

SEND 25% DEPOSIT ON C.O.D.'s

HONEST KART
SPUN ALUMINUM
Racing Wheel Disc
FOR ALL TYPES KARTS

4", 5" or 6"

Heavy gauge



Each \$1.50
Must Know Wheel Size
We Pay Postage
HONEST No. H-5

KOLOR KROME



Transparent Coloring for Chrome — the (Mirror like) reflection of chrome shows through —

4 Dazzling Colors in 16 oz. Spray Can
HONEST'S No.
KK-1 Pagan Gold
KK-2 Candy Apple Red
KK-3 Oriental Blue
KK-4 Parisian Green 1.98
16 oz. Can
We Pay Postage



SEND 25c FOR NEW 1959 MONEY SAVER CATALOG BIGGER—BETTER THAN EVER—MORE PAGES — EACH CATALOG CONTAINS \$1.00 FREE CERTIFICATE. GET NEXT ISSUE FREE.

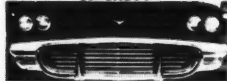


CHARLEY BAR AND GRILLE PRODUCTS
Stainless Steel TUBE GRILLS

At The Price You've Waited For. Sweeping Tubular Stainless Grille Bars Completely Pre-Assembled. Guaranteed Rust Proof — Full 3/4" diameter sections. Available For 52-59 Ford — 55-59 Chevrolet — 58 T Bird. Must Know Kind of Car and Year Model.



59 CHEVY



58 T BIRD



57 CHEVY



52 FORD



54 FORD



58 FORD



55 CHEVY



55-56 FORD



53 FORD

GIVE YEAR AND MODEL CAR WHEN ORDERING

HONEST NO. 87

Completely Pre-Assembled Kit
YOU PAY EXPRESS CHARGES

19.95

HONEST Junior Racing
Foot Pedal for all Go
Carts.

\$5.50 Each

No. H-2

We Pay Postage

HONEST ONE QUART
SPUN ALUMINUM
GAS TANK

For all Go Carts. A Thing
of Beauty — Complete
with Mounting Brackets.

Each

\$7.95

No. H-3

We Pay Postage

FUZZY WUZZY WUZZA
CRAZE
The Latest Craze
From California

FUZZY MIRROR - MUFFS
Made of Oh so Soft,
Fluffy, Angora Type Fur.
One Size Fits Nearly
All Inside Mirrors



HONEST
No. H-4 EACH — \$1.00
We Pay Postage

HONEST SOM-RAY
WHEEL
SPUN ALUMINUM
DISC



Both Street Type with
self locking rings and
our famous Drag Wheel
Disc with holes already
drilled and complete
with screws and lock
washers.

14" 15" or 16"

Must Know Wheel Size

No. 49 Screw on Type Wheel Each \$2.70

We Pay Postage on Screw On

No. 49A Snap on Type Like Reg. Wheel Covers

You Pay Postage On Snap On

Enclosed is \$..... for payment in full (or deposit
of 25% if C. O. D.)

NAME

MY CAR IS A... YEAR... MODEL... BODY...

ADDRESS

CITY... Zone... STATE... 9-59

Quantity	Stock No.	Description	Price



HONEST CHARLEY SPEED SHOP INC.

Box CC 1904
Chattanooga, Tenn.

SIMPLEX *Challenger* RACERS

No other racing Karts offer all these features as standard equipment for \$189.00 and \$269.00 delivered.

SIMPLEX <i>Challenger</i>	MARK I	MARK II
Standard retail price	\$189.00	\$269.00
INCLUDES		
Crated.....	Yes	Yes
Freight paid.....	Yes	Yes
Chassis completely welded.....	Yes	Yes
Painted-baked enamel.....	Yes	Yes
TYPE BRAKES		
Finest automotive two shoe internal expanding brakes.....	Yes	Yes
Internal band brake.....	NO	NO
External spot brake.....	NO	NO
Scrub on tire brakes.....	NO	NO
STEERING		
Diameter-kingpin.....	1/2"	1/2"
Aircraft type fittings.....	Yes	Yes
Shakeproof fasteners.....	Yes	Yes
Precise turning radii.....	Yes	Yes
Wheel size.....	5"	5"
Tapered roller bearings.....	Yes	Yes
Fully pneumatic tires.....	Yes	Yes
Hub caps (keep out dirt).....	Yes	Yes
Foot brake pedal.....	Yes	Yes
Foot accelerator pedal.....	Yes	Yes
Replaceable axles.....	Yes	Yes
ENGINE: choice of		
Lauson 4 cycle 2 1/2hp.....	Yes	Yes
Clinton 2 cycle 2 1/2hp.....	Yes	Yes
Dry air filter.....	Yes	Yes
Rewind starter.....	Yes	Yes
All chain drive.....	Yes	Yes
Front bumper.....	Yes	Yes
Automatic clutch (s).....	Yes	Yes
Seat side rails.....	Yes	Yes
Full length floor pan.....	Yes	Yes
Seat and back cushions are the <i>only</i> extra on these cars. Cost 9.85		

◀ **PROVE IT YOURSELF**—check all other Racing Kart claims and their extra costs against this list.

SIMPLEX MARK I *Challenger Racer*

with Clinton
2 1/2 H.P. engine



\$189⁰⁰

Delivered
(Less engine & clutch \$139.00)

Qualifies for class "A" competition. Designed by Bill Muller former Indianapolis race driver. Chassis and component parts are of such outstanding quality and workmanship they are easily capable of withstanding racing stresses of 100 mph plus when and if such speeds are attained by racing karts.
(available with Clinton 6 H. P. engine)

SIMPLEX MARK II *Challenger Racer*

with two Clinton
2 1/2 H.P. engines



\$269⁰⁰

Delivered
(Less engines & clutches \$169.00)

Qualifies for class "B" competition. The Mark II Challenger racer differs from the Mark I only in that it comes equipped with dual brakes, dual rod controls for the foot throttle and dual engines.
(available with two Clinton engines totaling 12 H. P.)

Send for **FREE** literature and name of nearest dealer.

SIMPLEX MANUFACTURING CORP. Dept. CC
540 North Carrollton • New Orleans, La.

DEALER INQUIRIES INVITED

Simplex Cars have been awarded Safety Seal of International Power Cycle Ass'n.

